COLONIAL HISTORY IN YOUR HANDS

By Peter Jones MA, MD, MBA

COLONIAL HISTORY IN YOUR HANDS

(A Colonial Collector's Collection)

by
Peter D. Jones
MA, MD, MBA

Copyright 2020

Published by Bookbaby

All rights reserved. No part of this book may be reproduced by any means without permission in writing from the publisher and author, except by a reviewer who may quote brief passages in a critical article or review.

ISBN: xxxxxxxxxxxxx

TABLE OF CONTENTS

Chapter 1. What exactly are colonial coins?..... 7

SECTION ONE – BRITISH ROYAL AUTHORIZED COINS

Chapter 2. 1659 Cecil Calvert Lord of Baltimore……..…….. 15
Chapter 3. 1688 James II Holt plantation token…….……..……30
Chapter 4. 1722–1723 Wood's Rosa Americana…….…….……..…..35
Chapter 5. 1722–1724 Wood's Hibernia…….……..……..…...56
Chapter 6. 1749 Regal halfpennies and farthings…….……..…….....70
Chapter 7. 1773 Virginia halfpenny…….……..…....75

SECTION TWO – FRENCH ROYAL MADE ONLY FOR COLONIES

Chapter 8. 1670 Gloriam Regni……..……..…...82
(1717 6 and 12 Perpignan coppers)……...……88
9 denier Louisiana coppers of 1721–1722……..…….…….88
Chapter 9. Stampees (1765 on)…….....….. 95
1767 copper sou……...…….....……104
1780–1789 Cayenne 2 sous……..…….…….…...107

SECTION THREE – FRENCH ROYAL DOMESTIC EXPORT FOR COLONIES

Chapter 10. 1640 edict: fleur-de-lys counterstamp…….…….....…..... 110
1692–1705 15 deniers billon……...…….……....…….112
1709–1713 30 deniers mousquetaires, and half mousquetaires...…..…...113
1738–1764 24 deniers sous marqués, and half sous marqués.....…..……114
Chapter 11. 1720 3, 6 and 12 deniers coppers & 20 sols of John Law……..……...….122
Chapter 12. Le Chameau wreck. 1724 and 1725 Ecus. 1723–5 Louis d'Or……..…...132

SECTION FOUR – LOCALLY MADE TOKENS and COINS

Chapter 13. 1652 Massachusetts Silver……..…… ..143
Chapter 14. 1737 Higley or Granby Coppers……..……176
Chapter 15. Maryland Silversmiths, 1783 Chalmers Silver……..……..183

SECTION FIVE – IMPORTED TOKEN COINAGE

Chapter 16. 1681 Mark Newby's St. Patrick Coinage……..……...187
Chapter 17. 1760 Roche's Voce Populi……..…….....…….…197
Chapter 18. 1766 Smither's Pitt Tokens, 1778 Rhode Island Ship Medal,
and 1785 Bar Copper…….…….…….…221

SECTION SIX – STATE COINAGE AND IMITATION HALFPENCE

Chapter 19. New Hampshire and Massachusetts 1776 coppers……..……...…236
Chapter 20. Massachusetts…….....……243
Chapter 21. Connecticut……...……..255
Chapter 22. New York, Machins and Imitation Halfpence…….....……...271
Chapter 23. New Jersey…….....303
Chapter 24. Vermont……..…….....384

SECTION SEVEN – PROPOSED AND ACTUAL FEDERAL.

Chapter 25. Proposed and Federal Coins before the Mint opens……...……...….402
Chapter 26 1792 Patterns…….….429

SECTION EIGHT – OPTIONAL COLONIAL COLLECTIBLES

Chapter 27. Washingtonia and Condor Tokens……...…444
Chapter 28. Commodity Money…….……...483
Chapter 29. Common Foreign Trade Coins…….……498
Chapter 30. Coins which should not be in the Red Book…….…...……521
Chapter 31. Little used pieces in Colonial America……..…….....…...534

GLOSSARY and METROLOGY…….…….…..…..556
1776 JOURNALS OF CONTINENTAL CONGRESS COLLECTION……...…….566
INDEX……..…….…….....585

Preface

In 1985, eight months after receiving a free Morgan Dollar in the mail, I started attending our local coin club, the Mansfield Numismatic Society, in Connecticut. The next month I went to a coin show and bought a 1964 mint set. This was the last year the US made regular issue 90% silver coins. I also bought a "War Nickel" (a war issue from 1942 to 1945 which substituted silver for nickel, a critical war material). And a "Steel Cent" (also a 1943 war issue which substituted steel for copper, another critical war material).

Two months later I bid on a coin at our coin club auction. The coin had the date 1787 and everybody said it was American. I had no idea America made coins then, but thought "how can I go wrong for $55"? It turned out to be a Very Fine Fugio copper, the first coin authorized by the United States. Even in 1985, when I could buy such a historic coin, people still did not appreciate American colonials. It was in this milieu that I decided to collect them. They are diverse, difficult to classify, and the subject of enormous scholarship.

In the 1950s there was little interest in colonial American coins. A few like Jim Ruddy, Ken Bressett, Eric Newman, Walter Breen and Q. David Bowers were interested. People appreciated Massachusetts silver, but other colonials especially state coppers had few followers.

Every year for two weeks I traveled to "coin camp" in Colorado Springs run by the American Numismatic Association. I took courses on how to photograph coins, a specialized area. Even expert photographers often have no idea how to photograph coins. Coins are eye candy for collectors. What better way to preserve our collections than by photography? I thought of producing a book with just photographs. But that seemed sterile, so I added the story behind each coin. The essence of numismatics to me is the beauty of each coin and the story behind it.

I do not collect coins with astronomical prices. When a coin is too pricey, I substitute copies, especially electrotypes — faithful copies of the original coin.

Starting around the 1860s several coin dealers (John Bolen, Alfred Robinson, Montroville Dickeson and William Idler) made copies of colonial coins for collectors who could not afford originals. And these have become collectible themselves. Today for example, a New England shilling is a six-figure coin. A collection of Massachusetts silver is not incomplete because it does not contain an original New England shilling. A copy, albeit less desirable, can still make it complete. Other colonial coin collectors do the same. Many of these early copies fetch high prices — thousands of dollars — for fakes!

While I have many coins, I do not have everything. I am indebted to Heritage Auctions (HA.com) who have kindly agreed to allow me to copy images.

Although the cut off for colonial coins could be anywhere between 1776 and 1793, the early days of the US Mint saw insufficient coin production. By 1857 there were finally enough circulating US coins for the government to announce that foreign coins were no longer legal tender. This gives an interesting twist to colonial coins — that the same circulating foreign coins of the colonial era continued for 65 years after the US Mint started in 1793.

Foreword by John Kraljevich

It's sort of a tall order to ask someone to work hard to engage in a hobby. I suppose most recreations require some combination of effort and skill, whether they involve a paddleboard or a palette. But after a while those diversions enable their practitioners to find some effortless space where the fun is cheap, the labor light, the imaginative expanding of horizons requiring no less effort than the initial attempts and never more.

God bless the folks who collect colonial coins, because this hobby isn't anything like that. Buying a few is easy enough, and pretty much anyone can wrap their head around a piece of paper money printed by the Continental Congress, or a shilling struck by the generation that followed the Pilgrims, or a medal struck to honor George Washington. The connection those objects create between their owner and historical moments that are meaningful to any sixth grader are a sugar high, an enjoyable energy that on its own doesn't evoke any deeper understanding. This doesn't make them bad or valueless, of course. Instead, in a small proportion of hobbyists, it creates a deeper yearning for both the objects and a wider range of historical moments. And the dragon those hearty collectors chase is more connections, more shared energy between our past and our present, and an understanding of the past that is as emotional as it is academic.

There aren't many folks willing to put in the work to get to a Jedi-level appreciation of the interconnections that our numismatic collectibles imply to a novice and prove to an expert. Dr. Peter Jones always has. He takes notes like a student intent on an A and asks questions with the rapid-fire urgency of a would-be Plato encountering a just-poisoned Socrates. Every answer creates a follow-up. Every follow-up induces a healthy nod. And all those nods, and the silent thoughts that accompanied them, have manifested in the work in front of you now.

Maybe it takes someone from the other side of the Atlantic to realize that any conception of a colonial American economy on its own is like imagining the independent locomotion of a fender down a highway. Modern historians call this understanding "vast early America" or "the Atlantic World". This underscored the mercantilist relationship between the hemispheres, the connections of Africa and the Caribbean to the American mainland, and the small-world unity that past historians and numismatists have ignored by cleaving intercontinental divisions into an economic system that had none. Peter's work incorporates the coins made here and those made abroad that came here with an expert's understanding of the colonial systems that deposited strange pocket mates together in early American purses. He honors that diversity by bringing those objects together in a single collection and those stories together between a single set of covers.

In short, Peter gets it. He gets that the history is why we collect these things. He gets that numismatists composing lists have edited economic history into a form that would have been unrecognizable to the actors in the colonial economy. He gets that paper and coins go together, that coins and medals go together, and that the effort to master the obscurata repays a hobbyist dividends in a most satisfying fashion. His book draws all of this higher-level understanding together in a way that will reward the beginner and also please those more advanced. It will help you appreciate your own coins more and make you want to go get more, including some you may never have considered before.

I've been honored by Peter's friendship for something close to two decades, and my own skill as a numismatist has been improved by his inquisitive nature. I've learned from him and I've learned more from this book. Read carefully and you will too — but take Peter's example as you do. The questions that come to mind as you learn might take work to answer, but the answers yielded by well-formed questions are the most satisfying of all.

John Kraljevich
Fort Mill, SC
December 2019

Dedication

To my wife, Ann, who has patiently withstood my serial addictions to the demands of medical practice, magic, classical piano playing, an MBA, flamenco guitar lessons, classical guitar playing, and all the way along numismatics, and paper money collecting.

To my three daughters, violinist Ashley, architect Rebecca, and photographer Alexandra, who have also put up with the same addictions.

To the American Numismatic Association – an important organization that has fostered my lasting interest in financial history. To them I owe my numismatic education.

CHAPTER ONE

WHAT ARE COLONIAL COINS AND HOW SHOULD WE CLASSIFY THEM

"When I use a word", Humpty Dumpty (from Lewis Carroll's *Through the Looking-Glass*), said, in a scornful tone "it means just what I choose it to mean". So how shall we define a colonial coin?

Colonial coins are metallic pieces made for, or used in, American circulation, or speculative issues proposed for circulation. They could include common silver and gold trade coins, but should not include every foreign coin or copper that may have passed in colonial America. Coins are pieces made with royal authority; tokens are pieces made without royal authority. The difference between coins and tokens is a big subject, but we have to start somewhere.

If you are not familiar with American coin collecting, I suggest you stop reading this chapter, as I intend it only for specialists. Just go to the next chapter and remember the five common areas of American colonial coins: Royal authorized coinage, Tokens, State Coinages, Proposed or actual Federal coinages, and Washingtonia.

Another question is whether colonial coins should include medals or medalets that refer to colonial America, but which did not circulate in colonial America. Many of us would exclude Betts medals and many Conder pieces from colonial coinage, although the C4 (Colonial Collectors Coin Club) Focus and Purpose statement includes coins, tokens, currency, and medals. It also includes some issues dating into the first half of the nineteenth century.

Examining other people's lists is a popular way to decide what is a colonial coin. Another way is to make your own list: what many collectors end up doing. This has the advantage that one can omit coins that are too expensive or unavailable. The EAC (Early American Coppers) — a club specializing in large US cents and half cents and some colonial coinage call these "NC" or non-collectible.

Harold MacMillan, UK prime minister, once pointed out that education is the ability to tell what is rot and what is not. We need to look beyond the Red Book and decide for ourselves what is colonial and what is not.

For some time, I have felt that colonial coin collectors should collect coins that circulated in colonial times. Many collect what is in the "Red Book" (A Guidebook of United states Coins). And until 2017 they did not address what many of us knew — that most circulating coins during colonial times were primarily foreign coins rather than the Red Book list.

Colonial American coinage is a very confusing subject so I will first deal with their classification, and then which coins one might include in a collection. The area is difficult to classify. Collecting federal circulating coinage makes life much simpler, as their classification is much simpler. I will start with the lists authors have used in the past to classify colonial coins:

Crosby 1875

- Sequential miscellany i.e. by date
  (Sommer, Virginia, Massachusetts
  Silver, Maryland, Canada 1670
  St. Patrick, Rosa)
- State
- Fugio
- Patterns and tokens
- American tokens
- Washingtonia

1947 Red Book

- Sequential miscellany,
  (Sommer, Massachusetts silver,
  Maryland, St. Patrick,
  Wood, French, State Coppers)
- Tokens and Patterns
- American Tokens struck in America or
  Britain ordered by American merchants
- Anglo-American Tokens
- Miscellaneous Tokens
- Washingtonia
- Fugio

Vlack 1965

-Sequential (Massachusetts Silver,
  Maryland, St. Patrick, Holt, Elephant,
  Rosa, Hibernia, NY token, Gloucester,
  Higley, Voce, Pitt, Virginia)
- French
- Castorland
- State

- Early US Currency
  (Continental dollar, Nova, Immunis, Confederatio, Fugio)
-Miscellaneous (Rhode Island 1778 to Theater at New York 1797)
- Washingtonia

Scott's 1971
- Sequential
  (Massachusetts silver, Maryland, Holt, Elephant, French, Woods, Higley, Virginia, Chalmers, Triumpho, Bar, Constellatio)
- State coinage
- Miscellaneous early tokens
- Early tokens of ?attribution
- Quasi colonial
- Washingtonia
- Fugio

Breen Encyclopedia 1988
- British Autonomous
- British Royal Authorized
- Pre Revolutionary Imports
- Pre Revolutionary Locally made
- French
- State
- New York State coins
- Post Revolutionary Private
- Continental Dollars
- Morris Nova patterns
- Proposed Confederation coins
- Miscellaneous imports
- Church tokens
- Washingtonia

Mossman 1993
- Commodity and country money
- Massachusetts and Maryland Silver
- Colonial paper
- Copper change (British and counterfeit, Hogge, Holt, evasion, St Patrick, Wood, Voce, Ireland, other)
- Revolutionary (Continental dollar and currency, Pitt token)
- Confederation Coinage (State, Constellatio, Fugio, Washingtonia, Immunis, Mott, Chalmers, Barry)
  - 1789 Copper panic

Jordan/Notre Dame 1998
- Money substitutes
- Coins made in colonies before 1750
- Spanish circulating
- Dutch Circulating
- British Circulating
- French
- Late colonial coppers
- Revolutionary war coins
- 1783 American coins
- Confederation Private coppers 1785–7
- Confederation patterns
- State coppers
- Fugios
- New York private issues
- Imitation British coppers
- British West Indies Coppers
- Post Confederation Local issues
- Post Confederation Imports
- Washingtonia

Will Nipper 2003
(Sequential)
- Commodity & country Money
- Paper money
- British coins
- Spanish coins
- Other trade coins
- Colonization period 1616–1763
- French
- Conflict 1764–1781
- Confederation 1781–1789
- Constitution 1789–1840

Bowers (Whitman) 2009 — artfully calls it Colonial and Early American Coins.
- Massachusetts Silver
- Early British for America
- American Coins and Tokens 1783–88 (Chalmers, Nova, Immune, Confederatio and State)
- Other early American
- European later pieces
- Washingtonia
- Unrelated foreign

2019 Red Book
A. FOREIGN CIRCULATING ISSUES
   Spanish-American Coinage
   Typical World Coinage
   (Netherlands, France, England)

B. COLONIAL
1. British New World (Sommer, Massachusetts, Maryland, St. Patrick)
2. Authorized British Royal Patent (Plantation, Rosa, Hibernia, Virginia)
3. Early American and related tokens
4. French New World

C. POST COLONIAL

1. Speculative (Nova, Immunis, Confederatio)
2. States Coinage
3. Private tokens post confederation (1781)
4. Washingtonia

D. CONTRACT ISSUES & PATTERNS

(Continental, Nova Patterns, Fugios, 1792)

Some common themes emerge from different authors' classifications:

- Experts often list sequentially, but this makes for a certain lack of clarity in thinking.
- Many authors commonly group classes e.g. French colonial, State coppers, Washingtonia.
- Several authors include country or commodity money, and the Red Book refers to this in the first paragraph on "Money of the Early Americans".
- The American Revolution is a dividing line for many, though Nipper makes another division with the peace of Paris (1763). The Federal period begins in 1789, but for coinage could begin with the US Mint in 1793 (or 1792 if you wish to start with the early Mint patterns).
- We must consider trade coins of other countries as circulating colonial coinage. Here again the Red Book used to mention this in the first paragraph on "Money of the Early Americans". But since 2017 it has a section on foreign coins in the colonies.
- Some include paper money, but to be fair that should be broken out as a separate subject.
- We may include tokens, coins, and medals, though I do not judge medals like the Rhode Island Ship Medal to be a colonial coin.
- Locally made versus imported coinage is another method of classification.
- Royal authorization, both British and French, is an important distinction.
- "This shouldn't be in the Red Book" is a common refrain, so we might use a separate class called "seldom or almost never used" pieces.
- People seem to disregard French colonial coins. They cast them aside as "French Canada". But "French Canada" included Louisiana territory, which after the Louisiana Purchase became part of America. We should consider coins that circulated in French Louisiana in colonial times as American colonial coins.

Any classification should not be overcomplicated. Synthesizing all these considerations together I propose:

1. Royal Authorized money
    a. British
    b. French
2. Colonial Tokens produced before 1792 excluding state and proposed federal
    a. locally made tokens before 1792
    b. imported tokens before 1792
3. State coinage including New York issues
4. Proposed and actual Federal coinage
5. Washingtonia
6. Optional Colonial collectibles
    a. Commodity and country money
    b. Common copper, silver and gold trade coins
    c. Conder Tokens relating to America
    d. Tokens made after 1792, which cannot be considered colonial
    e. Medals relating to the Colonial period (Betts Medals)
    f. Seldom or almost never used pieces in colonial America

Thus, without the optional collecting classes, we only have five main areas: Royal authorized, Local or imported Tokens and Coins, State Coinage, Proposed or actual Federal, and Washingtonia. For those unacquainted with American colonial coins, I suggest simply looking at the categories, rather than the names of the coins, with which the non-collector will not be familiar.

The commonest colonial ground finds in the Northeast are coppers, usually imitations of British halfpennies. The commonest colonial ground finds in the Southern Atlantic states are pistareens (small debased Spanish silver coins). The commonest gold coins circulating in colonial times were Brazilian or Portuguese.

A listing of colonial coins follows with dates:

c	Name	Notes	COUNTRY	Classification	Denominations
1652	Massachusetts Silver	Hull	British unauthorized	American made pieces	2d, 3d, 6d, 12d Ag
1783	John Chalmers Issues	John Chalmers	America	American made pieces	3d, 6d, 12d Ag
1790	Barry Three pence	Standish Barry	Baltimore, MD, America	American made pieces	Silver
1737-9	Granby Coppers	Samuel Higley	America	American made pieces	Copper
1795	North Wales Halfpenny		England	Conder Token	
1798	Theater at New York Token		England	Conder Token	Copper
1794-5	Talbot Allum and Lee Cents	Mulings w/ Conder tokens	England	Conder Token	Copper
1794-7	Thomas Paine Tokens		England	Conder Token	Copper
1792-4	Kentucky Token, Triangle Token		England	Conder token D&H Lancs #59	Copper
1797	New York Theater Token		England	Conder token D&H Mx	Copper
1794	Franklin Press Token		England	Conder token D&H Mx #307	Copper
1787	Auctori plebis token		England	Conder token D&H Norwich #21	Copper
1659	Maryland	Lord Baltimore	England	Foreign authorized coins	1d Cu, 4d, 6d, 12d Ag
1670	1670 French		France	Foreign authorized coins	5 and 15 sols Ag
1688	American Plantation Token	Holt	England	Foreign authorized coins	1/24 th Real Tin
1717	John Law Copper	John Law	France, Perpignan	Foreign authorized coins	6 & 12 deniers Cu
1720	1720 French	John Law	France, Paris	Foreign authorized coins	20 sols Ag
1749	1749 Regal Halfpenny		England	Foreign authorized coins	Halfpenny and farthing
1763	Black doggs		France	Foreign authorized coins	Sol tampe, overstruck billon
1767	Louisiana after 1763 Peace of Paris		France	Foreign authorized coins	Sou Cu
1773	Virginia		England	Foreign authorized coins	1/2d Cu
1640-1705	Old Sols		France	Foreign authorized coins	Various countermarked billon
1709-1713	French Billon Coinage		France, AA and D	Foreign authorized coins	15 & 30 Deniers Billon
1721-2	Colonies Francoise Sou		France, B &H	Foreign authorized coins	9 denier
1722-33	Rosa Americana	William Wood	England	Foreign authorized coins	1/2d, 1d, 2d Wood metal
1723-4	Chameau Ecu aux 8 L		France	Foreign authorized coins	Ecu Ag
1723-5	Chameau Louis Mirlitons		France	Foreign authorized coins	Louis Mirlitons Gold
1738-1760	French Billon Coinage		France	Foreign authorized coins	Sou & 1/2 sou marqué Billon
1681	St. Patrick New Jersey	Mark Newby	England	Foreign piece	1/4d, 1/2d Cu
1760	Voce Populi	Roche	Ireland	Foreign piece	1/4d, 1/2d Cu
1766	Pitt Token		England	Foreign piece	1/4d, 1/2d Cu
1778	Rhode Island Ship Medal	Lord Richard Howe	England	Foreign piece	Token Brass, Cu, Pewter
1785	Bar Copper		England	Foreign piece	Copper
1783-95	Washingtonia		Multiple	Foreign piece	Copper
1694	Elephant Token		England	Little used	1/2d Cu
1616	Hogge Money		Bermuda	Little used	2d, 3d, 6d, 12d brass
1668	New Yorke Token	Francis Lovelace	England	Little used	Token
1714	Gloucester Token Brass pattern	Richard Dawson	America	Little used	Shilling
1790	Albany Church Penny	only 100 ever made	Albany, NY, America	Little used	Copper
1722-1724	Hibernia	William Wood	England	Little used	1/4d, 1/2d Cu
1760-89	Spanish Proclamation pieces	Exceedingly rare	Spanish America	Little used	4 reales
1747-88	Machins Mills coppers	Mould, Atlee and Bailey	New York, America	Money state	Copper
1785-8	Connecticut copper	Abel Buell	America	Money state	Copper
1785-8	Vermont Coppers	Reuben Harmon	America	Money state	Copper
1786-9	New Jersey Coppers	Various	America	Money state	Copper
1787-8	Massachusetts cents	Callender and Perkins	Massachusetts, America	Money state	Copper
1796	Myddelton Token & Cu Co Mule	Boulton and Watt	Birmingham, England	Post Federal	Silver, Copper mule
1796	Castorland Medals	Benjamin Duvivier	Paris, France	Post Federal	Silver
1818	Texas Jola	Jose Antonio de la Garza	New Spain	Post Federal	Copper
1820	North American Token "1781"	Circulated in Canada	Dublin, Ireland	Post Federal	Copper
1820	Beaver token, North West Co token	John Walker	Birmingham, England	Post Federal	brass token
1839	Mott Store Card struck 1807-1839		America	Post Federal	Copper
1776	Continental Currency	Elisha Gallaudet	America	Proposed federal	Pewter, Brass, Silver
1783	Nova Constellatio patterns	Gouverneur Morris	America	Proposed federal	5,100,500,1000 units Cu & Ag
1786	Non vi virtute coppers	Atlee	New York, America	Proposed federal	Copper
1787	Brasher Doubloon	Brasher	New York, America	Proposed federal	Gold
1787	Fugio Coppers	Abel Buell	America	Proposed federal	Copper
1783-5	Nova Constellatio	Wyon	Birmingham, England	Proposed federal	Copper
1785-6	Confederatio	Wyon	Birmingham, England	Proposed federal	Copper
1785-7	Immune & Immunis Columbia	Wyon	Birmingham, England	Proposed federal	Copper
1786-7	E pluribus Unum patterns	Mould and Bailey	New York, America	Proposed federal	Copper
1792	1792 proposed coinage	Robert Birch	America	Proposed federal	1,5,10,25 cent. Cu & Ag
1776	New Hampshire	William Mould	America	State money patterns	Copper
1776	Massachusetts penny, Janus Cu	?Paul Revere	Massachusetts, America	State money patterns	Copper
1787	Excelsior coppers	Bailey	New York, America	State money patterns	Copper
1787	Liber Natus coppers	Atlee	New York, America	State money patterns	Copper
1787	Nova Eborac coppers	Bailey	New York, America	State money patterns	Copper

I propose a tentative list, not to be definitive or dogmatic, but to stimulate discussion. I suggest that common silver and gold trade coins be included in any colonial collection.

1 a. Royal Authorized - British
- 1659 Maryland
- 1688 Holt
- 1722–1723 Rosa Americana
- 1722–1724 Wood's Hibernia
- 1749 regal halfpenny and farthing
- 1773 Virginia

1 b. Royal Authorized French
- 1640–1705 Old Sols
- 1670 French 5 and 15 sols
- 1709–1713 French billon 15 and 30 deniers Coinage
- 1720 John Law Copper and silver issues
- 1721–1722 Colonies Francoise 9 deniers sou
- 1723–1725 Chameau Treasure coins gold Mirliton and silver Écu (both authorized but never arrived thus could not circulate)
- 1738–1760 French billon mousquetaires & sou marqué
- 1763 Black doggs sol tampé over struck billon
- 1767 copper sou Louisiana after 1763 Treaty of Paris
- 1780–1789 2 sou Cayenne for French Guiana

2 a. Local Colonial Tokens & Coins
- 1652 Massachusetts silver
- 1737–9 Granby or Higley coppers
- 1783 Chalmers silver
- 1790 Barry three pence

2 b. Imported Colonial Tokens & Coins
- 1681 St. Patrick
- 1760 Voce Populi
- 1766 Pitt token
- 1778 Rhode Island ship medal
- 1785 Bar copper

3. State Copper Coinage
- 1776 New Hampshire and Massachusetts
- 1787–1778 Massachusetts
- 1785–1788 Connecticut
- 1785–1788 Vermont
- 1786–1789 New Jersey
- 1786–1787 New York — Non Vi Virtute, Excelsior, Liber Natus, Clinton, Nova Eborac, Machin's Mills, and Brasher doubloons (gold)

4. Proposed and Actual Federal Coinage
- 1776 — Continental Currency (recently shown to be a foreign medal)
- 1783–1785 Morris' Nova Constellatio patterns (silver) and Wyon's Constellatio Nova coppers
- 1785–1786 Wyon's Confederatio related pieces (Inimica Tyranis, Gen Washington & Immunis), 1785 Immune Columbia 1787 Immunis Columbia
- 1787 Fugios

5. Washingtonia (several are Conder tokens)

6. Optional Colonial Collectibles

i. Commodity and Country Money
fur, tobacco, wampum, nails, beaver skins, trade silver, musket balls, kettle points

ii. Common Silver and Gold Trade Coins
a. Spanish pistoles and doubloons, Spanish pillar and bust dollars, Spanish Pistareens
b. English guineas, English crowns half crowns, and shillings
c. Dutch Ducats, and Lion dollars, Rijksdaalders, and Riders
d. French Louis d'or and Ecu
e. Portuguese or Brazilian Joe, half Joe, and Moidore
f. Irish coppers and gun money

iii. Conder Tokens relating to America
a. 1787 Auctori Plebis token
b. 1792–1795 Kentucky Token
c. 1794 Franklin Press token
d. 1794–1795 Talbot Alum & Lee mulings
e. 1794–1797 Thomas Paine Tokens
f. 1798 New York Theater Token

iv. Tokens made after 1792 so not colonial for America
a. 1796 Myddelton and Copper Co. of Upper Canada
b. 1796 Castorland Medal
c. 1818 Texas Jola
d. 1820 North West Company/Beaver Token

e. 1820 backdated to 1781 North American Token
f. ?1807–1839 Mott Token back dated to 1789

v. Little Used Pieces in America

a. 1616 Hogge Money
b. 1668 New Yorke token
c. 1694 Elephant tokens
d. 1714 Gloucester token
e. 1760 & 1789 Florida 4 reales Proclamation pieces
f. 1790 Albany church penny

The colonial period should start with the first settlement in present-day USA (St. Augustine in Spanish Florida in 1565) until the establishment of a Federal Mint (1792). The first colonial coins were actually Spanish. Another forgotten fact is that the Caribbean Islands were very much a part of colonial America. We should also consider coins that circulated there.

We have made too little of common silver and gold trade coins that were the backbone of colonial money outside commodity money and simple coppers for everyday items. Leo Shane has been studying almanacs of the period to see what coins are commonly mentioned in terms of equivalent worth and has come up with frequency ratings for various foreign silver and gold trade coins. This would give a better picture of what people then used rather than what modern books list.

Another method of selecting coins to collect is by price and rarity. The two go hand in hand. For most coins therefore, the question is not, "what is and what is not colonial?" but "what can I afford?" Along those lines here is a list of some other collecting areas that tie into colonial coins:

- Specific colonial areas e.g. coins of a particular state, Wood's coinage, Washingtonia, Fugios, Machin's Mills pieces, other imitation British copper pieces
- Colonial copies and electrotypes
- Commodity and country money
- Conder tokens reflecting the colonial period
- Common silver and gold trade coins during the colonial era, and or the coins listed in the Journals of Continental Congress in 1776 as accepted coins
- Betts medals
- Colonial paper money both state and continental currency
- Colonial fiscal documents
- Signatures of colonial personalities
- Spanish American type set (pre-cobs, cobs and milled)
- Carlos and Johanna first coins of the New World
- Comitia Americana Medals
- Anderson paper types

Common Silver and Gold Trade Coins

If we want to find out what colonial people used as money, what better reference than a letter by Franklin about the matter. On 29th June 1784, a Monsieur Frecon, a French mathematician wrote to Franklin, Ambassador to France from 1776 to 1785. Franklin lived in a home donated by Jacques de Chaumont, an American sympathizer, in Passy, a suburb of Paris.

Frecon asked "… I therefore dare to ask you, (1) the name, description, weight, in relation to that of marc de France, the title expressed as a general fraction, and the value of each of the real moneys which are in use in the principal places of America.

And (2) the name and division of the fictitious or real coins used to keep accounts of merchants, merchants, and others, in what manner they are employed, and in such a manner general.

(3) whether there have been open and established exchanges with London, or some other places, and how they were treated.

(4) what are the general and particular uses, either in the purchases or sales of goods, in wholesale and in detail with regard to either fictitious or real money; and in money loans etc., to know what are the terms granted for the credit, if for promissory notes promises, Notes, Letters of exchange to order, or not, and if after the Fixed deadlines, there still has Days of Grace."

Passy, July 3, 1784.

Mr. Felix Frecon

Sir:

The following is the best answer I can give to your letter of the 29th past.

I am,

Sir,

Your humble servant,

The real money used in the United States is French, Spanish, Portuguese and English coins, Gold & Silver. The most common is Spanish mill'd Dollars, worth 5 Livres 5 Sols tournois.

The nominal Money is generally Paper, reckoned in Pounds, Shillings & Pence, of different Value in the different States, when compared with real money, and that value often changing, so that nothing certain can be said of it. But everywhere the accounts are kept in the nominal Pounds, Shillings & Pence, the Pound containing twenty Shillings & the Shilling twelve Pence, whatever may be the real Value.

Bills of Exchange are frequently drawn on Europe, the rate of Exchange differing in different States, & fluctuating in the same State, occasioned by the greater or less Plenty of Bills or of Demand for them. They are commonly drawn at 30 Days Sight.

The usages in Buying and Selling Merchandises, are much the same in Europe, except that in Virginia the planter carries the Tobacco to Magazines, where it is inspected by officers, who ascertain its Quality and give Receipt expressing the Quantity. The merchants receive these Receipts in Payment for Goods, and afterwards draw the Tobacco out of the magazines for Exportation.

Weights and Measures are uniform in all the States, following the Standard of Great Britain.

Money is lent either upon Bond, or on Mortgage, payable in a year with Interest. The Interest differs in the different states from 5 to 7 PCt.

Goods are generally imported on 18 months Credit from Europe, sold in the Country at 12 months Credit.

Billets or Promissory Notes payable to the Creditor or order are in use and demandable, when due, as well as accepted Bills of Exchange; without any Days of Grace, but by particular Favour.

Franklin made three points:

1. The commonest American coins were French, Spanish, Portuguese and English.
2. Paper money is usually denominated in pounds, shillings and pence (this was the money of account in colonial times)
3. People used Bills of Exchange for most foreign transactions.

What foreign coins did people use in colonial America for their bullion value? One has to start and stop somewhere, so I would like to suggest the following list of 21 coins:

Spanish 6 coins

a. pistoles 1537–1786. 2 escudo pieces of Spanish or colonial Spanish origin either cobs and/or milled coinage.
b. doubloons 1537–1786. 8 escudo pieces of Spanish or Colonial Spanish origin either cobs and/or milled coins
c. Spanish pillar dollars 1732–1772
d. Spanish bust dollars 1772–1822 (Obviously the date should be within colonial period though Spanish silver was legal tender until 1857)
e. Spanish Pistareens – cross 1707–1772 (worth 18 cents) or: - head 1772 on (worth 17 cents)
f. other Spanish colonial coins are common and optional, but cut fractions were quite common especially of pistareens and Spanish milled dollars. Many collect 8, 4, 2, 1, and half real pieces, but pistareens were much more common.

English 7 coins

a. Guinea Charles II 1663 to George III 1792
b. Crown James I 1603 to George II 1751
c. Half Crown James I 1603 to George II,1751
d. Shilling James I 1603 to George III 1787
e. Sixpence James I 1603 to George III 1787
f. Threepence Charles I 1625 to George III 1792
g. Regal English or Irish halfpenny 1608 – 1791

Dutch 4 coins

a. Ducat gold 1579–1805
b. Lion dollar (leeuwendaalder) 1601–1698
c. Rijksdaalder 1591–1700
d. Rider (Ducatoon) 1659–1798

French 2 coins

a. Louis d'or 1640–1794
b. Ecu 1709–1792

Portugal or Brazil 2 coins

a. Moidore 4,000 Reis 1640–1732 Fraction or multiple (2,000, 4,000, 10,000 or 20,000)
b. Joe 12,800 Reis 1722–1835 or fraction (800, 1,600, 3,200, 6,400)

A special case is French colonial coinage, a complex subject. It can be classified sequentially as above, or as follows:

1. Official Made Only for Colonies (OMOC)

a.New France i.e. Canada

1670 5 and 15 sol silver
9 deniers coppers of 1721–1722
(I call Louisiana Crossed L coppers)

b.French West Indies unofficially used in Louisiana

Stampees of crowned C 1765
Sou of 12 deniers copper with and without counter-stamp 1767
Cayenne 2 sous of French Guiana 1780–1789

2. Official Domestic Export to Colonies (ODEC)

a. Billon

1640 counter-stamped douzaines and sixaines
1692–1705 douzaines
Mousquetaire and half mousquetaire
Sou marqué and half sou marqué

b. John Law

1720 coppers of 3 deniers (liard), 6 deniers (half sol), and 12 deniers
1720 silver 20 sols

c. Le Chameau

Mirliton gold (Petit Louis d'Or)
Écu silver

3. Unofficial Domestic Export for Colonies.

Breen A–X , i.e. commonly circulating French coins in New Canada

References:

Anderson, William G., *The Price of Liberty.* University Press of Virginia, Charlottesville, VA 1983
Betts, Charles W., *American Colonial History Illustrated by Contemporary Medals*. Scott Stamp and Coin Company, NY, NY 1894 (Available as Kessinger Legacy Reprint)
Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American coins*. Whitman Publishing, Atlanta, GA 2009
Breen, Walter H., *Complete Encyclopedia of U.S. and Colonial coins*. Doubleday Books, NY, NY 1988
Crosby, Sylvester S., *Early Coins of America*, Published by the Author, Boston, MA. 1875
Ford's Edition, *Journals of the Continental Congress*, September 1776, page 726, Volume V. List of Foreign Silver and Gold coins and their equivalent weights and values in 1776.
Mossman, Philip L., *Money of the American Colonies and Confederation*. ANS, NY, NY. 1993
Nipper, Will, *In Yankee Doodle's Pocket*. Bowmanstone Press, Conway AR. 2008
Shane, Leo, Personal Communication. 2010
Taxay, Don, *The Comprehensive Catalogue and Encyclopedia of United States Coins*. Premiere Edition. Scott Publishing Co. NY, NY . 1971
Vlack, Robert A., *Early American Coins*. 2nd Edition. Windsor Research Publications, Inc., Johnson City, NY 1965
Yeoman, R.S., *Guide Book of United States Coins*, Whitman Publishing, Racine, WI. 1947
Yeoman, R.S., *Guide Book of United States Coins*, Whitman Publishing, Atlanta, GA. 2010
www.colonialcoinunion.com
www.coinfacts.com
www.coins.nd.edu

CHAPTER TWO
ROYAL AUTHORIZED BRITISH COINAGE
MARYLAND COINAGE OF LORD BALTIMORE 1659

Coins authorized by the British crown for circulation in Colonial America were:

- Maryland or Lord Baltimore coins in 1659
- Holt or James II American Plantation tokens of 1688
- Rosa Americana coins of William Wood 1722–1723
- William Wood's Hibernia coins 1722–1724 (associated with Rosa Americana)
- Regal halfpenny and farthing of 1749
- Virginia halfpennies of 1773

This chapter deals with Baltimore's coins.

A. Daddy Lord Baltimore

I took much of this from Louis Jordan's article on Maryland coinage in the Colonial Newsletter in 2004.

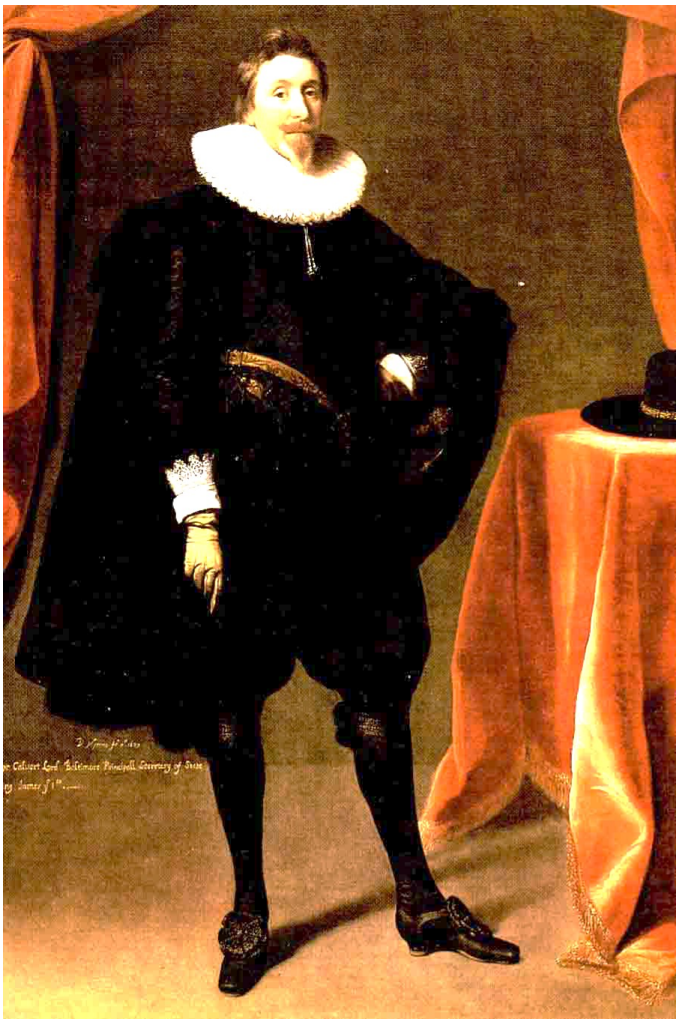
George Calvert (1580–1632), whose father Leonard was Roman Catholic, was educated as a Protestant against his father's wishes. George graduated from Trinity College, Oxford, where he would have had to pledge allegiance to Queen Elizabeth I, with the implied denial of the Pope's authority over the English Church. While traveling in Europe he met and befriended Sir Robert Cecil, who rose to be Secretary of State for England (similar to prime minister). George would later rise to become Secretary of State himself in 1619.

George tried to arrange for King James I's son Charles (later King Charles I) to marry the Infanta Maria, daughter of Spanish King Philip II. But his diplomacy failed. Prince Charles decided instead to marry Henrietta Maria, daughter of French King Henry IV.

George's position in court as an advocate for Spain became tenuous and he resigned in 1625, selling his Secretariat for £3,000, though he remained on the Privy Council. King James I made him the First Baron of Baltimore, in County Cork, Ireland — the southernmost village in Ireland. There George converted to Catholicism, which he then practiced openly.

B. A false start at Avalon

George Calvert had long been interested in the New World, and in 1609 invested in the Virginia Company (which settled Virginia).



George Calvert, First Lord Baltimore by Daniel Mijtens

Another colonist, John Guy, a merchant from Bristol, England, left in 1610 with 39 men for Cuper's Cove, the northern Bay in what people later called the Avalon peninsula, off southeast Newfoundland (see next page). They built a palisade, 16 buildings and six fishing vessels. By 1613, 62 people lived at the plantation. But the colony did poorly with insufficient food. Capt. John Mason replaced Guy as Governor in 1615. He soon abandoned the colony in 1621 for New England. There is some evidence that an unorganized colony remained there till abandoning it in the 1700s.

In 1620 George Calvert bought the Avalon peninsula in Newfoundland from Sir William Vaughan, a Welch writer and investor. George named the plantation Avalon, after a legendary English island where Christianity started.

Avalon Peninsula in Newfoundland.

George wanted to export fish and furs to England. In 1621 he sent Capt. Edward Wynne with about 12 colonists, to settle Ferryland, a fishing port on the east coast. The next year a supply ship increased the population to 32. By 1625 there were 100 permanent residents. George visited Avalon with his son Cecil in 1627, and again in 1628, but met with French pirates. He found the inhabitants short of corn because of the severe winters there.

George resolved to leave his holding as a fishing port for migratory fishermen and looked for warmer climes. From the 1500s European fishermen had visited Newfoundland in the summers, for the bountiful cod available there.

C. The Royal patent for Maryland

In 1632 George applied to King Charles I for a royal patent for the coast between the James River and Carolina. George wanted to name it "Crescentia" (more about that later), but King Charles named it Maryland after his French wife Henrietta Maria. George died in April that year.

D. Son Lord Baltimore.

The final paperwork (the grant) came through in June 1632 to George's son and successor, Cecil Calvert, the Second Lord Baltimore. Two weeks later Cecil received a revised charter which omitted the Virginia peninsula. The revised charter defined it as the area around Chesapeake Bay. Baltimore would only owe the King one fifth of any silver or gold found there and give the King a yearly tribute of two Indian arrows!

Charles I's grant made Lord Baltimore a Lord palatine. This needs some explanation because it made Cecil's coinage legal. European monarchs could grant palatine rights to feudal lords giving them local authority that elsewhere belonged only to a sovereign. Palatine rights included levying taxes, minting silver coinage, granting titles, holding court and incorporating cities. The word palatine means "of the palace".

Most English coin collectors are familiar with the Bishop of Durham having palatine powers and coining silver pennies. However, over the years English monarchs also granted palatine rights to the Bishops of Ely, the Earls of Chester, the Dukes of Lancaster, and the Earls of Ormonde and Desmond in Ireland and others. During the interregnum in 1658, Oliver Cromwell also affirmed the Calvert's palatine rights. King Charles I granted the Lords of Baltimore a coat of arms, shown below. Cecil's coins also show two arcs over the crown with an orb and cross (called an orb crucifer) in the center. Only those with palatine rights could use this crown.

Cecil Calvert Coat of Arms. Note crown with 2 pennants, also depicted on his denarium.

Michael Hodder (an American numismatist specializing in colonial coins) noted the crown shown on his coinage is an Earl's not a Baron's coronet. This is because it is the closest English equivalent to the coronet of a European Count palatine. A continental Count is equivalent to and English Earl.

E. Cecil Calvert starts the Maryland colony. Cecil sought investors for the colony. On November 22, 1633 he sent his brother Leonard to Maryland. Leonard sailed from Cowes, England in a 300-ton ship *Ark* with another smaller 30-ton ship *Dove*. They carried 150 to 200 passengers of which 17 were gentlemen and most of the rest indentured servants. Each investor received 2,000 acres for every five males transported and whose passage they paid. In return they had to pay Cecil 400 pounds of wheat a year.

They anchored at St. Clement's Island at the mouth of the Potomac River (see map opposite). A scouting party found an Englishman, Capt. Henry Fleete, living there with the Indians. He arranged for them to establish themselves in present day St. Mary's City, Maryland, on the tip of the peninsula between the Potomac and Patuxent Rivers (see map on the right). After a month on board, they built a stockade with five cannons. The settlers then built cottages, and a water-powered gristmill. In 1635, the second growing season, they planted tobacco.

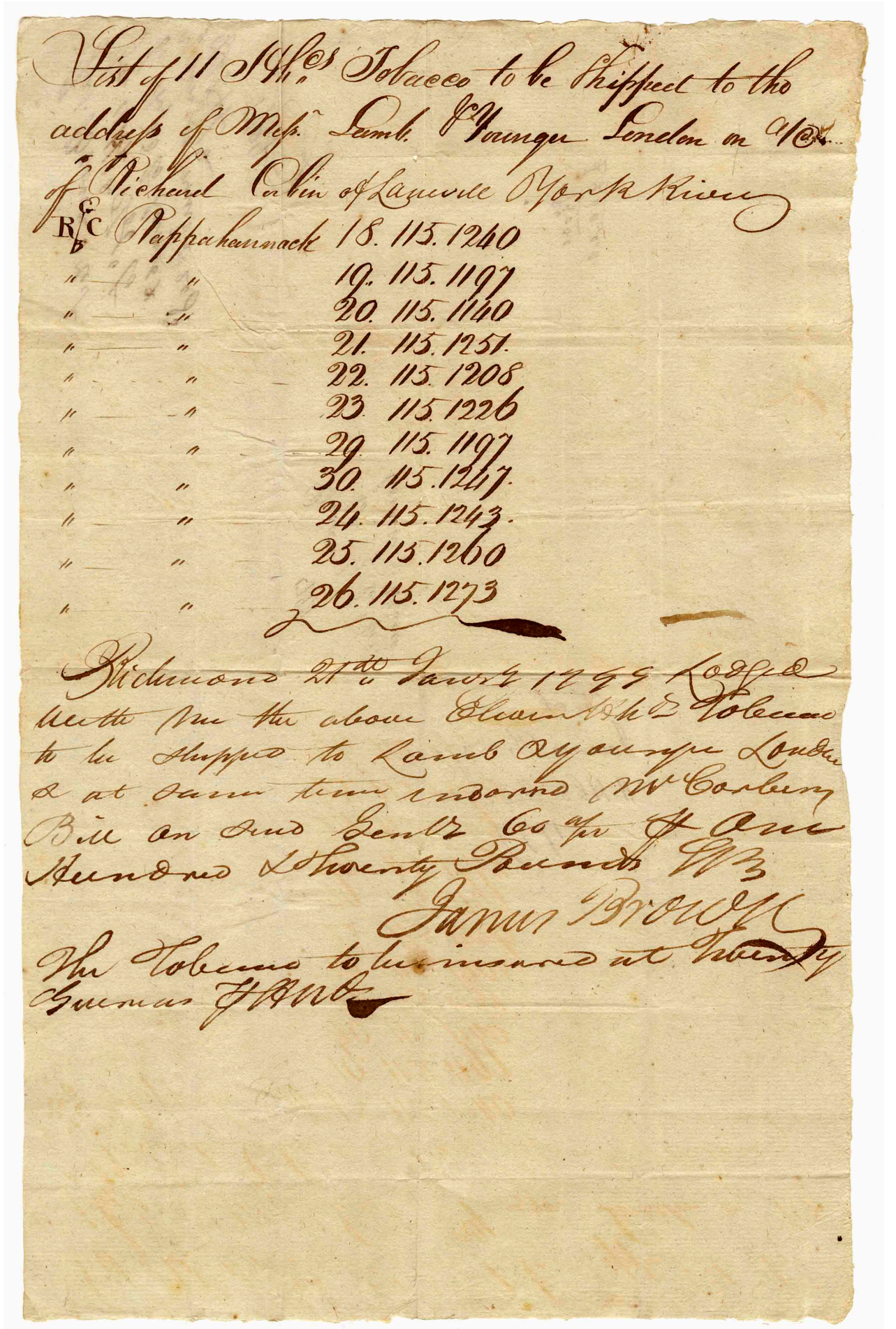
Cecil Calvert, second Lord Baltimore by Gerard Soest ca. 1670. Note collar.

Sir John Hawkins first brought tobacco to England from Florida in 1565. John Rolfe, from the Jamestown settlement in Virginia, first imported Spanish tobacco seeds in 1612. This Spanish variety of tobacco was much milder and pleasing to smoke than Indian tobacco. Rolfe's tobacco reached England in 1613. By 1617 Virginia was shipping 20,000 pounds of tobacco to England a year. How natural for Maryland to follow their neighboring Virginia in cultivating tobacco!

Tobacco became the mainstay of Maryland's economy and the chief form of payment. Louis Jordan in the Colonial Newsletter points out that, in the 1650s, 70 - 80% of payments mentioned in colonial court documents specify tobacco as the form of payment. Corn, beaver skins, wampum (and occasionally money) accounted for the other 20-30%.

Virginian tobacco sold for 36 pence a pound from 1618 to 1625. By 1636–1637 it sold for 5–6 pence, by 1640 for 2.5 pence, and 1659–1740 for 0.8–1.6 pence a pound. A series of boom and bust cycles followed. Just like commodities today, scarcity increased tobacco prices; overproduction lowered them.

Maryland map showing St. Mary's and St. Clement's Island.



List of 11 Hhds. Tobacco to be Shipped to the addrss of Messrs. Lamb & Young London on A/C. of Richard Corbin of Laneville York River

R & C b

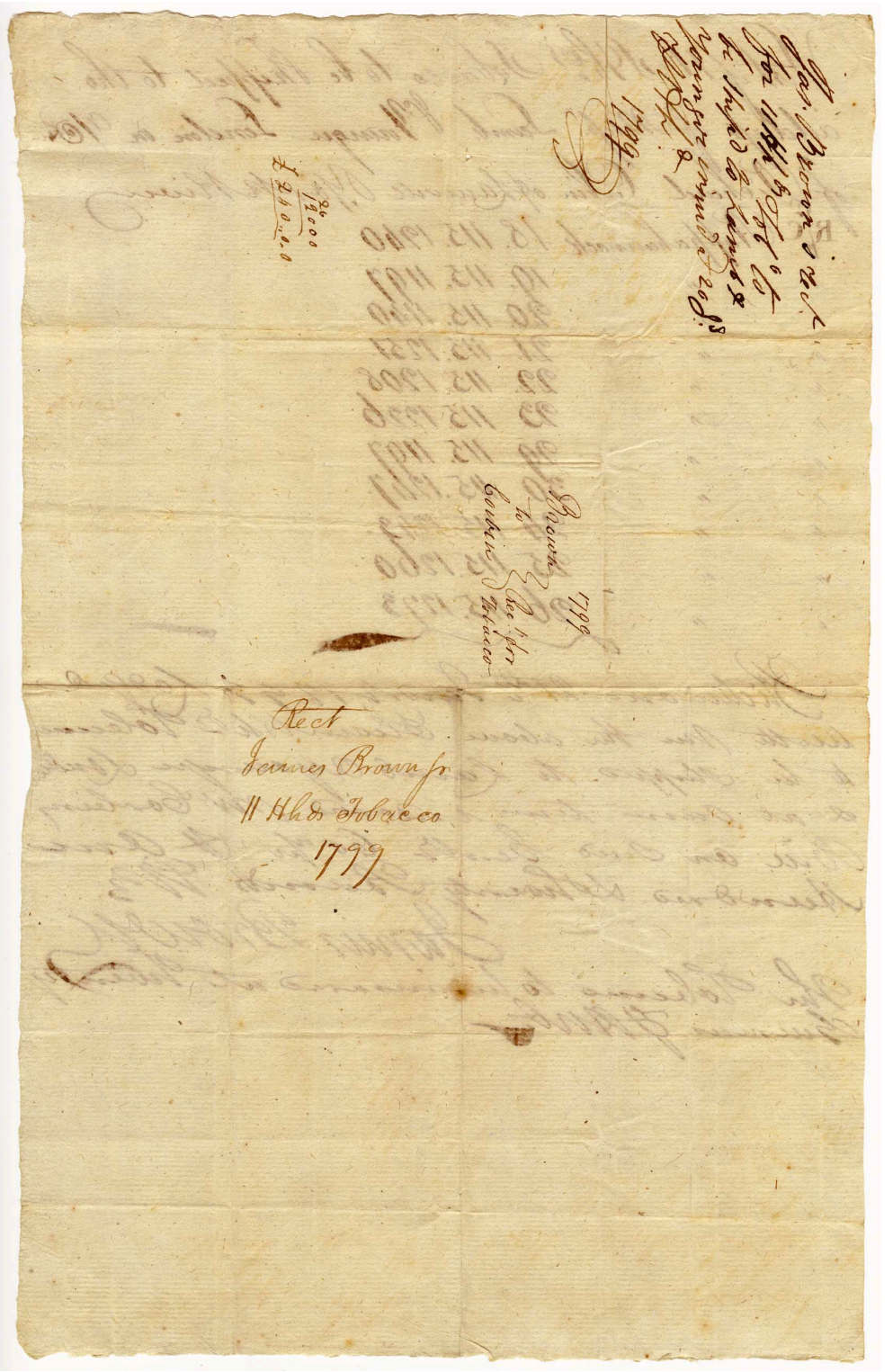
Pappahannock	18.	115.	1240
" "	19.	115.	1197
" "	20.	115.	1140
" "	21.	115.	1251.
" "	22.	115.	1208
" "	23.	115.	1226
" "	29.	115.	1197
" "	30.	115.	1247.
" "	24.	115.	1243.
" "	25.	115.	1260
" "	26.	115.	1273

Richmond 21st Janry 1765 Lodged with me the above Eleven Hhds Tobacco to be Shipped to Lamb & Young London & at same time indorsed Mr Corbins Bill on said Lamb & Co for £ One Hundred & Twenty Pounds Sterl

James Brown

The Tobacco to be insured at Twenty Guineas P Hhd

Tobacco receipt & transcript courtesy of Colonial Williamsburg Foundation, used instead of money



Transcript of James Brown's receipt for tobacco, Richard Corbin Papers, MS1971.5:

List of 11 hhds [hogsheads] tobacco to be shipped to the address of Messrs. Lamb & Younger London on a/c [account of] Richard Corbin of Laneville York River

[list of tobacco marks & quantities]

Richmond 21st March 1799 lodged with me the above eleven hhds [hogsheads] tobacco to be shipped to Lamb & Younger London and at same time indorsed Mr. Corbin's Bill on said? Co. 60% per annum hundred twenty pounds

James Brown

The tobacco to be insured at twenty guineas [initial]

F. The Interregnum.

Governor Leonard Calvert, Cecil's brother, died in 1648. Cecil replaced him with William Stone, an Anglican, whom both Catholic royalists and Protestants liked. Oliver Cromwell's Puritan Protestants beheaded King Charles I in January 1649, beginning the interregnum (between the rules of King Charles I and II) led by parliament and the military under Cromwell.

In 1649 Virginian royalists persecuted Puritans, so hundreds of Puritans migrated from Virginia to Maryland. Virginia even threatened to execute Puritan sympathizers. The next year Cromwell's Puritan parliament announced they would take over rule of the Caribbean and Virginia, as both supported the monarchy, but not Maryland.

Maryland opened itself up to Puritan and Anglican refugees. Although Cecil Calvert, was a Roman Catholic he espoused religious moderation. His Maryland governor was an Anglican. Even Catholic royalists found an Anglican less objectionable than a Puritan! That year Maryland's population doubled. Protestants could now outvote Catholics in the Maryland Assembly! Thus, Baltimore lost control of Maryland from 1652 to 1658.

In March 1652, Cromwell's parliament sent a fleet with 700 men together with 150 Scottish prisoners taken at the Battle of Worcester (the last battle of the English Civil War), to sell as indentured servants. They told Maryland Governor Stone to swear an oath to Cromwell's Commonwealth. He agreed.

But when they told him to issue all writs, warrants, proclamations and orders only by parliamentary authority, he refused. So, Cromwell removed Stone and replaced him with a council of Puritans. Within three months locals had had enough. They reinstated Stone.

In December 1653 Cromwell dissolved parliament. Next year the Maryland General Assembly (now under Protestant control) passed a law denying Roman Catholics any legal rights.

In March 1655 Lord Baltimore's supporters, both Catholic and moderate Protestants under Governor William Stone, attacked Puritans at the Battle of Severn in Maryland. Stone was defeated losing 49 of his 130 men. The Puritans lost only two of 175 men. They called it the last battle of the English Civil War! Puritans then controlled Maryland until 1658.

Cecil administered Maryland (from 1632 until he died in 1675) from England, mostly from his home, Kiplin Hall, in Catterick in the north of Yorkshire. He protested his loss of control of Maryland to Cromwell, who in November 1655 appointed two lawyers Bulstrode Whitlock and Sir Thomas Widdington to report on Lord Baltimore's rights in Maryland. By May the next year they reported favorably.

Kiplin Hall, Catterick, Yorkshire

In 1657 Lord Baltimore made a deal with the colony's Protestants. He endorsed the colonial Assembly passing an Act establishing the Church of England as its official church. By November 1657 Baltimore thus regained control of his colony. He then appointed Capt. Josias Fendall to replace Stone, feeling perhaps Stone had made too many enemies. Fendall sailed to Maryland, where they accepted him as Governor in April 1658. Cecil then sent out another brother, Philip, as Provincial Secretary.

The Maryland colonial legislature (called the Assembly) had two houses: an upper and a lower house. The upper house comprised the Governor and his council (the Provincial Secretary and four councilors). The lower house or House of Burgesses comprised freemen.

Meanwhile, Cromwell grew dictatorial. When he died in September 1658, his son Richard, succeeded him, but lacked his father's political skills. Most English people feared an alternative hereditary monarchy, and invited King Charles II (then hiding in France) to resume the monarchy.

G. Lord Baltimore's Coinage Scheme.

Now that Lord Baltimore had control of his colony back, he had an idea to make money. The idea occurred to him somewhere between November 1657 and September 1659. Tobacco had been selling for around two pence a pound. He figured he could mint coins for the colony that were 25% underweight. Further, he would impose a poll tax of 120 pence on each taxable

male, payable as 60 pounds of tobacco. By law, he would then reimburse Maryland for their tobacco at two pence a pound, using these coins. He would thus buy tobacco discounted at 25% less then resell the tobacco at a profit.

Although the coins helped Baltimore proclaim his authority in Maryland his primary motivation was business. Easing commerce in Maryland was secondary. If Baltimore had wanted to ease commerce, he could have declared local Spanish coins "cried up" by 25% of their value to keep the coins from leaving Maryland, and had them cut into fractions.

Baltimore contracted with the Tower Mint in London, England, to engrave dies, and produce hammer struck coins in 1658 (Bowers) or 1659 (Red Book). The coins were struck on center and the die alignment was consistent. Presumably, they constrained the hammer dies in some device to achieve this.

Richard Plight, Clerk of Irons at the Tower Mint (alias Keeper of the Dies), complained that mint employees were making lightweight coins that Baltimore would export out of the country. He complained to the Commonwealth Council of State (equivalent to the King's Privy Council) on October 4, 1659. They authorized him to apprehend Lord Baltimore and his coins and dies. The council then referred the matter to the Council of Plantations. But within a week the Council gave Baltimore a favorable judgment. Presumably he argued that he was within his rights as palatine Lord to coin silver within his realm. Also, in 1651 the Commonwealth had relaxed laws against exporting bullion.

Baltimore wrote to Governor Fendall, and his brother Philip, in November 1659, saying that if no one accepted the coins, it would be an "utter discouradgement (sic) for the future supply of any more". Further, he said if the issue were successful there would be an "abundance of adventurers". Baltimore ordered his officers to promote the coinage.

By March 1660 the upper house of the Maryland Assembly passed laws to establish a Maryland mint, make the coin current, and punish counterfeiters. But the lower house never addressed the Act because Puritans still plotted against Baltimore. Historians think Fendall may have allied with Protestants to take over the lower house of Burgesses to usurp Baltimore's authority.

Cecil's brother, Philip, returned to England in 1660 to talk to him. Baltimore then removed Fendall from office and sent Philip back as Governor in September. Baltimore declared an amnesty to all repentant rebels, except Fendall and his associates. They convicted Fendall of treason then pardoned him in April 1661.

The new Governor Philip Calvert ruled the upper house composed of himself, Provincial Secretary Henry Coursey, and four councilors. They reintroduced the Act for a Maryland Mint. But two councilors objected, perhaps cautious about Baltimore's uncertain palatinate status. The lower house had already approved the Act.

But a Maryland mint was out of the question. They had insufficient infrastructure, silversmiths or ironworkers to coin silver. They had no provision to pay mint masters, coiners, assayers, etc. in Maryland, even if they imported dies from London.

In April 1662 the Maryland Assembly passed statutes to distribute Baltimore's coins and confirm the "Mint Act". The statute said Baltimore would accept the coins for rent, taxes and fines, but did not require people to accept the coins in trade. Taxable people would have to pay their annual poll tax for three years or until the end of the next assembly which occurred in September/October 1663. Maryland thus distributed the coins between April 1662 and October 1663. Of the ten shillings' tax paid (in tobacco) half would go to Baltimore; they would use the other half for the administration and expenses of Maryland.

So how did the scheme work? After all Baltimore's hullaballoo, tobacco dropped in price in 1662 to 1.6 pence per pound! His Act mandated that he pay two pence of 25% underweight coin (i.e. 1.5 pence sterling) for a pound of tobacco, which ended up being worth only 1.6 pence. Bummer! Each taxable male would accept 120 pence (underweight by 25% i.e. 90 pence sterling) for 60 pounds of tobacco.

The tobacco Baltimore acquired sold for only 96 pence. He let the matter drop as he had lost money on the venture and could not attract investors with such a scheme. The Maryland Assembly dropped the Act in October 1663. Lord Baltimore did not oppose them.

H. The Coins.

Cecil Calvert left, Cromwell right. Both draped bust left.

The coin's obverse had Cecil Calvert's image, strikingly similar to that of Oliver Cromwell's coins in 1656 to 1658 (see above). They say imitation is the best form of flattery! Both had a draped bust facing left and a Latin legend. Calvert's was Cecilivs Dns (Dominus) Terrae Mariae &c. (Cecil, Lord of Mary's Land etc.).

The coin's reverse shows a crowned heraldic shield with the legend Crescite et multiplicamini, meaning grow and multiply (from Genesis 1:22) in place of Baltimore's family motto. Again, it was a similar layout to Cromwell's coins. Recall that Cecil's father had wanted to call Maryland Crescentia. Cecil Calvert's crown has two arcs over it with an orb crucifer on top, imitating a European Count's palatine crown.

Coat of Arms Cecil Calvert left, Cromwell right.

Cecil had three silver denominations struck: four pence (groat), six pence, and twelve pence (shilling). He stated denominations on the reverse in Latin numerals. He also had some copper patterns struck called denarii. Only 5 - 9 of these are known today. He did not want to bother coining coppers, as silver coins expressed his political authority and enabled him to execute his 25% discount scheme better.

Hodder's obverse and reverse dies, as he cataloged them in the Norweb sale catalog, are:

Denarium:	1-A, 2-B. (5 to 9 known in total)
Groat:	1-A, 2-B (rare)
Sixpence	1-A, 1-B (1 is large bust), 2-B, 2-C (commonest), 2- D (2 is small bust)
Shilling:	1-A (large bust and commonest), 2-B (small bust)

Weights fluctuated as they prepared planchets at a specific number of coins per pound troy (80 rather than the regal 62), instead of weighing each planchet (as happened with regal silver and Massachusetts silver). Baltimore's weights were:

Groat	1.28 to 1.96 grams
Sixpence	1.62 to 2.95 grams (average 2.41 ± 0.32 grams standard deviation)
Shilling	4.00 to 4.81 grams

Lord Baltimore's coins are around 25% underweight compared to regal silver. Only sixpences are common enough to figure average weight. Louis Jordan gives the above weights. Massachusetts's also struck their 1652 silver coins 22.5% underweight, to try to keep them from leaving the colony. Massachusetts silver circulated in England and other colonies at a 25% discount, as did Maryland coins.

We have no documentation of the number of taxable males in Maryland in 1662. But in 1663 records showed 2,873 "taxables", equivalent to £1,436 and 10 shillings. But some "taxable" were exempt, and some may have been delinquent.

How many coins did Lord Baltimore strike? Official figures do not exist. However, a look at how many hammer dies they used (a rough estimate of the number of coins such hammer dies produced) and the relative rarity of each denomination today, help to give rough estimates. A very rough estimate of how long hammer dies lasted in those times was 15,000 for obverse dies (usually fixed) and half that for the reverse dies (as they were the dies struck with the hammer and subject to more abuse). Assuming this, emissions might be:

Groats	15,000	total £250
Sixpence	30,000	total £750
Shilling	15,000	total £750
	Total	£1,750

This total is interestingly close to the calculated distribution of £1,436 and 10 shillings (for 2,873 "taxables"). Walter Breen (see references) does the same calculation backwards, saying 5,500 "taxables" (likely incorrect) implied 20,000 shillings, 32,500 sixpences, and 52,800 groats. But these ratios do not correspond with the number of dies used and today's relative rarity.

Estimates for surviving coins today and grading company censuses are:

	Whitman	PCGS plus NGC
Denarii	5–8	2
Groats	18–33	16
Sixpences	43–76	52
Shillings	28–50	46

A tentative guess at mintages is:

	Approximate Survivors	Approx. Mintage	Yield
Groat	20	8,000	£133
Sixpence	55	22,000	£550
Shilling	40	16,000	£800
Total:			£1,483

I. Maryland Finances after Baltimore Coins.
In 1652 Massachusetts legislated people use their coins in commerce and paid John Hull as mint master. They induced people to bring silver to their mint. Because they struck coins 22.5% underweight, you got more shillings per pound of silver. Further you could not spend the coins abroad because they were underweight, thus helping to keep the coins from leaving the colony. Baltimore also struck underweight coins, but did not mandate use in local commerce, and had no sustainable plans for a mint.

Tobacco was by far the largest Maryland commodity. It gave rise to a series of boom/bust cycles in tobacco prices and production. During a depression in 1671 the Maryland Assembly "Advancement Act" increased the value of sterling coinage by 25%. In colonial times they called this "crying up" though Baltimore had craftily demanded people pay all taxes in non-cried up denominations.

Various calculations follow for common trade coins. I give three values: the sterling value, the denomination, and the cried up value all in pence (d):

Spanish 8 Reales were 25.2 grams actual silver weight (ASW), or 27.25 grams sterling - value 53.9d, denomination value 57.2d, cried up 71.8d.

Mexico Eight Reales silver cob.

Thus, if you took silver to the English mint worth 53.9d, the mint paid you 53.9d and would strike coins to a denomination of 57.2d. The profit (seignorage) paid for the minting and the King's profit.

Massachusetts and Maryland shilling value 9d, cried up 12d.
English coins were illegal to cry up, though they circulated 25% higher when local coins were cried up.

Potosi Cobs (also called Peruvians) were a special case. In the 1640s the Spanish King sent Francisco Nestares Marin, to investigate debased coins at the Potosi, Peru Mint. During the scandal Marin executed the mayor, Francisco Gomez de la Rocha, and the assayer, Juan Ramirez de Arellano, in 1648. He fired or dismissed several other assayers. He ordered counter-stamps on debased cobs to revalue them. The new assayer, Juan Rodriguez de Roas, used a ⊙ mark representing a wheel (rueda) in 1649. In 1652 Potosi replaced the cob design using a shield on one side, but pillars and waves rather than a cross on the other side.

New Post Transitional Potosi Cob 1653

French ecus were cried up from a denominational value of 57d to 72d.

French Ecu 1643–1715

Flanders ducatoons (silver riders) were cried up from a denominational 66d to 90d.

1734 Ducatoon or "Silver Rider" from Zeeland Province, Netherlands, from 1735 Vliegenthart Wreck of 1735

In Maryland in 1671, tobacco was the commonest form of exchange, though they also used tobacco receipts (the government stored the tobacco in warehouses and gave the owner receipts — one is shown on pages 18 and 19). After tobacco were Spanish American cobs, then Baltimore, Massachusetts and English silver, followed by Dutch Rijksdaalders.

In 1676 the Maryland General Assembly repealed the "Advancement Act" which had cried up everything in 1671.

In 1675 Cecil Calvert died and Charles Calvert, his son, the Third Lord Baltimore took over. Unlike his father, Charles lived in Maryland. Baltimore coinage seldom circulated then, and after 1680 no sources mentioned it.

In 1680 the economy diversified. Probate inventories valued items in pounds of tobacco or Maryland money of account, (which used regal pounds shillings and pence). In 1686 Maryland cried up their coinage again.

Three years later Protestant Col. John Coode captured St. Mary's Town with a Protestant force. The Governor and council signed a surrender, including an agreement that Catholics could not hold office. In 1692 Maryland became a royal colony, which excluded the Calverts. In 1694 the crown forced Maryland to rescind their 1686 "advancement" or crying up.

From 1688 to 1697 Europe fought the War of the Grand Alliance (called King William's War in America). England, Netherlands, Spain and Savoy fought Louis XIV of France. In North America, New England fought French Canada. The war financially drained the allies and France, so they settled with the treaty of Ryswick in 1697. During this time "Lion dollars" from Netherland circulated much more in North America.

1644 Lion dollar from West Friesland Province, Netherlands

In 1704 the English Queen Anne (1702 - 1714) proclaimed new valuations for foreign coins circulating in the colonies. This was the same old ruse of "crying up' coin's values again by 25%. (It was not always 25%). Parliament passed her proclamation in 1708.

In 1706 Maryland asked the crown for permission to coin coppers, complaining that tradesmen moved north because they were paid regularly in spendable copper there, whereas Maryland employers only paid them once a year in tobacco.

Maryland also suffered because in 1707 a Richard Clarke led a Maryland counterfeiting ring making fake Lion Dollars and 8 reales pieces. Maryland convicted him of high treason and executed him. In 1708 Maryland passed Queen Anne's Proclamation with another "Advancement Act" i.e. 25% "crying up". Maryland then dropped her request to coin coppers.

The Proclamation revalued coins (mostly up by 33%) as follows:

- **8 Reales of Seville, Mexico, Potosi, French Ecus and Old Rix dollars** 54 to 72 d
- **8 Reales Seville "New Plate"** (reduced silver) 43 to 57d
- **Cross Dollars** (Patagon dollar of Spanish Netherlands) 52 ¾ to 70d
- **Silver Riders** 66 to 88d
- **Portuguese Crusados** 34 to 45d
- **3 gilders of Holland** 62 to 83d
- **Lion dollars** 44 to 54d (no official value, should have been 58.6d).

In February 1715 Charles Calvert died and his Protestant son Benedict took over. They would now appoint a Protestant Benedict to office and political authority. Unfortunately, he died two months later.

The monarchy restored Maryland to the Calvert family's proprietary control under Benedict's son Charles, Fifth Lord Baltimore. Charles traveled to Maryland briefly in 1732, but spent his life in British politics, becoming Lord of the Admiralty.

Charles' son Frederick, the last Baron of Baltimore (1731–1771) led an extravagant and scandalous lifestyle. Acquitted of rape, he sought refuge in Naples, dying of a fever aged 40. His illegitimate son (thus untitled), Henry Harford, inherited his father's estates, but after the American Revolution, lost title to Maryland. The end of an era!

J. A counter box with 19 Baltimore sixpences. In November 2002 an English auction company, Morton and Eden, advertised a consignment from the Fane family at Fulbeck Hall, in Lincolnshire, England. The consignment included a silver counter box, which contained 19 genuine Lord Baltimore sixpences. The box had the silversmith's mark IC within a heart, recorded at Goldsmith's Hall, London, as dating from circa 1680. The base had the initials MB engraved. We still do not know who or what that stands for.

In 1622 Francis Fane, the first Earl of Westmorland, bought Fulbeck Hall in Lincolnshire, which became their family seat. His second surviving son, Sir Francis Fane (1611–1688?), a Royalist and courtier to Charles I, continued to live at Fulbeck Hall. Puritan forces captured him in 1644, when he was commanding troops under Charles I.

Later in life, Sir Francis moved from Fulbeck to Aston, South Yorkshire. Cecil Calvert, Second Lord Baltimore (1605-1675) lived in Kiplin Hall, Catterick, North Yorkshire, 80 miles north of Aston, on the old London to Edinburgh road (now the A1).

Cecil Calvert's successor was his son Charles, the third Lord Baltimore (1637–1715). He lived in Maryland from 1661 as the Deputy Governor, and left for England in 1684, never to return. Sir Francis Fane's successor (? 1630s–1691) had the same name. He was the third Sir Francis Fane, a courtier to Charles II, and a dramatist.

If the counter box dates from about 1680 it is possible that Charles Calvert (Third Lord Baltimore) gifted the third Francis the gambling counter box containing the 19 coins (Who knows how many the box originally contained?) Charles and Francis were both nobles and contemporaries, and gambling was then an upper-class diversion.

Charles Calvert would have had access to the coins when he was Deputy Governor in Maryland from 1661 to 1684. This is simply a supposition, with no proof. Alternatively, Francis Fane could have gotten the coins by winning a bet with a Calvert (most likely Charles); travelling to Maryland (no proof); or by some other means. The sixpences are worn, as they would have been from circulation or by using them as gambling tokens. These thoughts are all conjecture.

The winning bids for the 18 Hodder 2-B coins in the Morton and Eden Auction ranged from £2,800 for an English weak AF (US Fine) to £9,500 for an English EF (US AU55). With the exchange rate then of $1.58 to the pound, and the buyer's premium of 17.625%, that equated to a range of $5,200 to $17,650.

One coin, a Hodder 2-D, the third known example, described as an English AEF (US AU), sold for $52,000 to the American auction company Stacks. I was one of the unsuccessful bidders! All the other coins sold to American buyers.

Morton and Eden's Catalogue cover for November 2002. Courtesy of Morton and Eden.

References:

By Daniël Mijtens - [1] [2], Public Domain, https://commons.wikimedia.org/w/index.php?curid=58301819
https://en.wikipedia.org/wiki/File:Canada_Newfoundland_location_map.svg
https://en.wikipedia.org/wiki/Cuper%27s_Cove
https://msa.maryland.gov/msa/mdstatehouse/img_content/large_lcalvert.jpg
https://en.wikipedia.org/wiki/Cecil_Calvert,_2nd_Baron_Baltimore#/media/File:Coat_of_Arms_of_Cecil_Calvert,_Baro
Bowers, Q. David, Whitman Encyclopedia of Colonial and Early American Coins. 2009. Whitman Publishing, Atlanta , GA.
Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins*. 1988 Doubleday, NY.
Jordan, Louis E., Colonial Newsletter. August/December 2004. Volume 44, No.2, Serial No. 126. Pages 2651-2768.
Morton and Eden November 2002 catalogue.
Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*. 72nd Edition. Whitman Publishing LLC Pelham, AL 35124
https://en.wikipedia.org/wiki/Kiplin_Hall#/media/File:KHi121la.jpg
By Rojabro - Own work, CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=16490728

484

IDLER STRUCK COPY OF LORD BALTIMORE DENARIUM 20.6MM, 5.02 GRAMS UNC

2700

BALTIMORE SIXPENCE 1658 - 1659. CALVERT/SHIELD. HODDER-2-C; 20MM PCGS XF45

2831

BALTIMORE SHILLING 1658 - 1659. CALVERT/SHIELD. HODDER 1-A; 25MM PCGS XF40

CHAPTER THREE
ROYAL AUTHORIZED BRITISH COINAGE
HOLT'S AMERICAN PLANTATION TOKEN 1688

History

As far back as 3000 BCE people knew how to alloy copper with tin to make bronze. Tin increased copper's hardness and lowered its melting point. Metalsmiths realized this and a trade network for tin developed.

Tin was first mined and refined in Asia Minor. The early Mesopotamians and people in the Indus Valley, Egypt, Crete, Israel and Peru also made bronze. Incas and Aztecs also had tin mines before 1492. Most tin mines contain cassiterite, which is stannic oxide (SnO_2). When burned with coal or coke in a smelting furnace cassiterite changes to tin.

Much of the tin used by early Mediterranean people came from the Scilly Isles and Cornwall in England, where tin mining started around 300–320 BCE. In 1201 the Crown granted "First Charter of Liberties" to the "Tinners" of Devon and Cornwall in England. Tinners (tin miners) had the right to search for tin on any unenclosed land, and the Crown exempted them from military service, taxes and ordinary laws.

From 1679 to 1680 the tin industry in Devon and Cornwall became depressed. Several owners convinced the Crown to use tin for coins. English King Charles II produced tin farthings from 1684 to 1685, and King James II produced them from 1685 to 1687. William and Mary also made tin farthings from 1689 to 1692 and tin halfpennies from 1690 to 1692.

In 1688 Richard Holt, an agent for several Cornish tin mines, petitioned King James II to make tin tokens. On July 27th 1688, he sent a pattern of a tin farthing to the Lord Commissioners of the Treasury with a letter. Henry Guy, on behalf of the Lord's Commissioners forwarded the letter on 13th August to James II. A private company in London had struck the specimen using the facilities of the Royal Mint, not an unusual practice at the time.

John Roettier (1631–1703), a prominent die engraver at the Royal Mint, cut the dies. Charles II had invited John Roettier and his brother Joseph from Antwerp to join the British Royal Mint. In 1662 John became chief engraver at the mint. Samuel Pepys said John's medals "were some of the finest pieces of work... that I ever did see in my life". We do not know whether the crown granted a patent, approved the tokens, or how they shipped them to the colonies.

Breen stated that John Croker (1670–1741) engraved the dies. However, Croker, a native of Dresden, lived in the Netherlands till 1691, and did not work at the Royal Mint until 1697.

Properties of Tin

Tin is a silvery white metal, though small added amounts of copper, antimony and lead make pewter which ages into a greyer metal. Tin has two main allotropes. An allotrope is the property of some chemical elements of existing in two or more forms in the same physical state, from atoms bonding together in different ways. Tin exists as alpha or beta tin. Beta tin is a stable shiny metal, malleable and ductile. At low temperatures, it transforms into alpha tin, which is gray to black and powdery.

Pure tin in the cold slowly converts to alpha tin, but once the reaction starts conversion accelerates. Melting alpha tin changes it back to a shiny stable beta tin. Cody's lab on YouTube left beta tin for five years in a freezer at -0^0 F before it changed into alpha tin. The video shows tin changing between the alpha and beta forms. They call gray alpha tin, tin pest. Pure silvery beta tin converts exceedingly slowly at room temperature but even small quantities of impurities (antimony, zinc, copper, lead, bismuth or silver) lower the temperature required for conversion to -40^0 F. Enough impurities and you get pewter, which is stable.

Coin and Token Weights (Metrology)

In Richard Holt's letter, he said that the coin inscription was "vall 24, part Riall Hispan". He continued, "made after the rate of 10 d p l (10 pence per pound) and 2 d p l. Both Breen and Newman seem to have ignored the 2 d p l statement, a different weight standard. Likely,

the 2 should read 12. Given this, Holt was saying 10 to 12 pence per pound of tin, or 40 to 48 farthings per pound. There are two systems of weights: avoirdupois and Troy. Breen said the coins were 9.07 grams at 50 to the pound avoirdupois. But Snelling (see references) used avoirdupois for regal coins, and troy weights for some tokens and copper coins. This is unusual. Usually, people use Troy for precious metals only:

	Avoir dupois	**Troy**
1 pound	453.59 grams	373.25 grams
¼ d wt @ 40/lb	11.34 grams	9.33 grams
¼ d wt @ 48/lb	9.45 grams	7.78 grams

Usual weights for the American Plantation Token are 7.78 to 9.33 grams, close to Holt's 40 to 48 per troy pound Troy (not avoirdupois).

England had colonies at the time in Bermuda, Jamaica, Barbados, other West Indies islands, Virginia, Carolina and Maryland. Spanish coinage was common in all of these places. In New Jersey, New York and New England, Spanish coinage was less common. Authorities once listed the American Plantation token as a "Florida Token" - quite why I do not know, as England never had a colony in Florida!

An eight reales piece technically weighs 420 grains i.e. 27.21 grams of 93.1% silver. Sterling silver was 92.5% - pretty close. People clipped cobs so we cannot know unclipped weight ranges without knowing legal weight tolerances. Milled 8 reales starting in 1732 legal tolerance was 26.865 to 27.264 grams.

Before 1642 Massachusetts and England valued eight reales at 54 pence. In 1642 Massachusetts, but not England, "cried up" the 8 reales to 60 pence i.e. they increased its circulating value. In 1672 Massachusetts "cried it up" again to 72 pence. English authorities likely did not calculate the 1/24th real token in cried up English values as the real was a Spanish not English denomination.

For those insisting on an English value, at 54 pence per 8 reales, a 1/24th real would be 0.28 pence (i.e. close to a farthing). At 72 pence per 8 reales, a 1/24th real would be 0.375 pence (i.e. 1½ farthings). However, it was never Holt's, the Royal Mint's or the Crown's intention to circulate the tokens as an English denomination.

While the colonies cried up the value of silver, I know of no evidence that they cried up the value of a tin 1/24th real. Thus, we should call the piece a token for 1/24th real. It may indeed have passed as a farthing in England or as a penny in America. Why as a penny? English halfpenny sized coppers passed as pennies in America because of the lack of small change. The Holt token was 28 mm diameter, closer to an English 29mm halfpenny. English farthings were 22 mm in copper and 23 mm in tin.

So how did they pass in Spanish America where they used Spanish not English coins? Originally, one real of silver equaled 34 copper maravedi, though this varied at different times. In 1686 Spain revalued its 8 reales piece to 10 reales, making the new silver real worth 27 maravedi. Thus 1/24th part of a real was close to a copper maravedi.

Rearing equestrian statue of James II from Newcastle Common Council.

The Token

The obverse shows a rearing equestrian James II, not on natural ground but on a plinth as though it represented a statue rather than a live portrait. The closest statue I have been able to find on the internet is from the Royal Collection Trust of

Queen Elizabeth II above. Following the example of several groups in England, the Newcastle Common Council cast an equestrian statue of King James II to show loyalty to their King. But after the Glorious Revolution (more about that later) they tore down the statue and threw it in the river! The Mint could have taken the obverse image from one of these equestrian statues, now no longer in existence. The legend reads: IACOBUS. II. DG. MAG. BRI. FRA. ET. HIB. REX (James II by the grace of God, King of Great Britain, France and Ireland), all within a circle of pellets.

The reverse shows four crowned shields chained together, representing (clockwise): England (three couchant lions), Scotland (one rampant lion), France (three Fleurs-de-lys) and Ireland (a harp). The legend starting at 12 o'clock reads: VAL. 24 PART REAL HISPAN, all within a circle of pellets. The edge is grooved and has 89 to 92 raised dots (see opposite). This is unusual for a low value token, but perhaps Holt wanted to impress the King, and freshly minted tin looks nice. People seem to orient the reverse with the Scottish shield at 12 o'clock, I am not sure why.

The Mint used a screw press with six obverse and eight reverse dies, and used Castaing edge dies to make the coins. With such a soft metal as tin, and this number of dies, I would suggest more than 100,000 coins were struck. People have found the coin in excavations in America and England. Here are the rarity ratings (from Bowers):

1-A 5–8 known (HB not HIB on reverse)
2-B 17–32 known
2-G 6 known (Breen), transposed arms on reverse.
3-C 5–8 known (sideways 4 in 24)
4-D existence not confirmed
4-E 33–64 known (mostly restrikes, Wierzba suggests die rotations of 3–4h are probably original, and 0–1h are probably restrikes)
5-D 17–32 known (mostly restrikes, obverse die break 1-4 o'clock)
6-F 17–32 known
7-F ?Unique
8-C 5–8 known. No dot after X.

Die 7 shows the first I in II higher. Die 8 shows no dot after X. The Red Book lists the sideways 4 in 24, the restrike with the die break, the HB not HIB reverse and the transposed arms all as four separate priced varieties. The number of harp strings is key to the reverse types.

TABLE OF DIE VARIETIES

Obv.		With Rev.
1	Head directly under G. HB instead of HIB. Hoof ends under center of right base of X.	A
2	Head directly under G and leaf touches G. No period after X. Hoof ends under right end of base of E.	B
3	Head centered under space between G and B favoring G. Right base of N high. Hoof ends under right side of right base of X.	C
4	Head centered under space between G and B favoring B. F in FRAN higher than preceding I. Hoof ends under space slightly right of base of X.	D E
5	Head centered under space between G and B favoring B. D G widely separated. Hoof ends under right side of right base of X. Die break connecting AN and HI.	D
6	Head centered under space between G and B favoring G. Second I of II higher and thicker than first. Hoof ends under left base of X.	F

Rev.		With Obv.
A	6 strings in harp. Large fleurs-de-lis and lions. Head of lowest lion left of heads of other two.	1
B	7 strings in harp. Large fleurs-de-lis and lions. Line of lions' heads rises to left. Right fleur higher than left fleur.	2
C	8 strings in harp with diagonal string between third and fourth. Sidewise 4 in 24. Right fleur is high.	3
D	11 strings in harp. Small fleurs-de-dis and lions. Right fleur slightly lower than left fleur. Lions' heads in vertical line.	4 5
E	7 strings in harp with top three close. Small fleurs-de-lis. Highest lion distant from and left of other two.	4
F	(?) strings in harp. Large fleurs-de-lis and lions. Lowest lion's head right of heads of other two. Crown over harp tilts left.	6

Newman's list of die varieties from his Numismatist 1955 article.

Reproduced with permission from the July 1955 issue of The Numismatist, official publication of the American Numismatic Association (money.org).

Edge of original and restrike Holt token

Restrikes

In 1828 (Newman said 1888 in his 1955 article) Mathias Young, a London coin dealer acquired Roettier's dies. He kept two pairs, the 4-E and 5-D, but sold the remainder to the British Museum. He made a few hundred restrikes which he sold through another London coin dealer, W.S. Lincoln & Son. Most restrikes were the 5-D variety. Restrikes used the same grooved edge with raised dots (see above), so Young presumably also acquired the Castaing edge dies.

He made the planchets of pewter with 85% to 90% tin — enough impurities that tin pest was not a problem. Consequently, these coins often look much better than the originals. Originals are about 97.5% tin, which makes tin pest a problem. Tin pest shows as black powdery blotches on the surface of the coin.

447

Holt American Plantation Token 1688. Newman 5-D; 28mm, 7.64 Grams EF

What happened next?

James II was Charles II's brother. During the interregnum they both lived in France, where James had a lot of Catholic exposure. The English restored Charles II to the throne in 1660. He died of a stroke in 1685, converting to Catholicism on his deathbed.

James secretly married a commoner, Anne Hyde, although he continued with his copious mistresses. Only two of his legitimate children survived infancy (Anne and Mary), and Charles II insisted the Court bring them up as Protestants. James also secretly converted to Catholicism, but kept it quiet until 1673 when he refused to take an oath disavowing various Catholic practices.

James' wife, Anne, died of breast cancer in 1671. James then married the Catholic 15-year-old Mary of Modena (the word pedophile did not exist then, it appeared in the 1900s)! After becoming King in 1685, he appointed many Roman Catholics to high posts. But in June 1688 they had an infant boy, whom people worried would become another Catholic monarch. Seven Protestant nobles then invited James' Protestant daughter, Mary, with her husband Prince William of Orange (from the Netherlands) to rule England.

They arrived on November 5th, a propitious day as it was the anniversary of Guy Fawkes Gunpowder Plot (also called the Jesuit Treason). In 1605 Guy Fawkes with other English Roman Catholics tried (unsuccessfully) to blow up the House of Lords while King James I was in session i.e. an assassination attempt on the King.

A month after William and Mary arrived with their army, James II fled to France. They shed not a drop of blood to rid the country of the Catholic King, an event called the "Glorious Revolution".

James II lived out the rest of his life in France. His son James (the Old Pretender) was brought up in France as a Catholic. In 1715, with Louis XIV's help, he started a Jacobite rebellion in England to regain the throne. This failed. His son Charles (the Young Pretender) tried the same thing in 1745 and also failed. More details about this follow in Chapter 17.

James II English Crown. Note same arrangement of 4 crowned shields on reverse. This crown has a lettered edge reading: Anno regni quarto decus et tutamen (4th year of reign, an ornament and a safeguard {from edge shaving}).

King James II in 1680s by artist John Riley.

References
Bowers, Q. David, Whitman Encyclopedia of Colonial and Early American Coins. 2009. Whitman Publishing, Atlanta , GA.
Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins*. 1988 Doubleday, NY.
Jordan, Louis E., Colonial Newsletter. August/December 2004. Volume 44, No.2, Serial No. 126. Pages 2651-2768.
Snelling, T., *Snelling On the Coins of Great Britain, France and Ireland &c.* M. Young, London. 1823 reprint. Page 5 of *A View of the Copper Coin and Coinage of England* 1766.
Wierzba, Dennis, American Plantation Token 4-ETwo Distinct Reverse Orientations. Colonial Coin Collectors Club Newsletter. Spring 2013, Vol 21, No.1, pages13 - 14
Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*. 72nd Edition. Whitman Publishing LLC Pelham, AL 35124
https://coins.nd.edu/colcoin/ColCoinIntros/AmPlant.intro.html
http://english18thcenturyportraitsculpture.blogspot.com/2016/09/equestrian-statue-of-james-ii.html
By John Riley - http://oil-paint.ru/archives/john-riley oil-paint.ruhttp://www.wikiart.org/en/john-riley/james-duke-of-york-later-king-james-ii, Public Domain, https://commons.wikimedia.org/w/index.php?curid=7972066

CHAPTER FOUR
ROYAL AUTHORIZED BRITISH COINAGE
ROSA AMERICANA COINAGE

Finances of the common colonist

American colonists were chronically short of small change. Most people lived in rural communities where they used "country pay" — rural commodities like corn or furs as barter. Often, they used "money of account" as well. Lacking sufficient small change, a local country store would keep accounts for many locals. A farmer might receive credit for bringing in a barrel of corn. The store owner might then debit his account if he purchased some nails from a local blacksmith, or wool from a local sheep farmer with accounts at the same store.

A border in someone's house might pay for his keep by repairing fences, or providing other services. Both border and house owner would each keep a book in which they listed these IOUs as "money of account". It was inconvenient to barter with commodity money like wampum (Indian beads), corn, nails, musket shot and furs which required time to negotiate.

Mexican 8 Reales cob from 1650 #66

French Ecu 1643–1715 #2018

Charles II Crown 1677/6. S 3558 VF #2205

1734 Ducatoon or "Silver Rider" from Zeeland Province, Netherlands, from 1735 Vliegenthart Wreck #2675

Colonists found specie (precious metals in the form of coins) scarce. Spanish silver circulated more than any other. Before 1700 these were mostly the piece of eight, almost an ounce of silver and hardly small change. Other crown sized coins included the English crown (worth 60 English pence), the French Ecu (like the piece of eight worth 54 pence), and Dutch "silver riders" (worth 66 pence). Dutch lion dollars later became common, varying in value from 44 to 58.6 local pence.

Bostonians paid schoolmasters £20 a year in 1635 (80 crowns). President Rogers of Harvard made £100 a year in 1682 (400 crowns). In 1748 colonists paid female household servants £8 to £10 a year (32 to 40 crowns) and male servants £16 to £20 a year (64 to 80 crowns). However, servants also got room and board. From 1774 to 1792 unskilled laborers made about 2 cents an hour in North America, about a crown for six day's work. Work was hard, often twelve hours a day, six days a week.

There are 60 English pennies, abbreviated "d" to a crown and 12 pennies (12d) to a shilling. But

in colonial America a scarcity of small change made people use English halfpence as pennies, or more accurately "coppers". After 1671 it took between 12 and 24 such coppers to make a colonial shilling, depending on the colony. Thus, laborers who made a shilling a day could change this into 12 to 24 coppers to buy things with.

As well as 8 reales pieces, there were also less common 4, 2, 1 and half real pieces. In the early 1700s pistareens found their way to the Americas. Though denominated at 2 reales, they had 20% less silver than a regular 2 reales piece. As debased silver, pistareens would stay in the colonies as Spain refused them in payment. Pistareens first appeared as a monogram style, then in 1717 as the cross-style pistareen, then in 1778 as the head style pistareen. In a study of 199 ground find pistareens, authors found 170 (85%) were cross style pistareens from 1717 to 1738 (CNL page 2188, see references).

1724 Cross pistareen 26.5mm, 5.17 grams #1770

1770 Mexican Pillar Dollar 39mm, 26.76 grams #1432

While one could cut 8 reales cobs into four quarters (each called "two bits"), the irregularity of cobs (see previous page) made this impractical. Cutting pieces of eight into fragments started with the machine struck pieces of eight in 1732 (called "pillar dollars" see above).

Cutting up coins had started earlier with pistareens. Five pistareens equaled one piece of eight, worth 54 English pence. People valued each pistareen just under 11 pence (before any "crying up"). In America many people cut them along the cross to make half and quarter pistareen fragments. Thus, a half pistareen was close to sixpence, and a quarter pistareen was close to three pence. If your state had declared there would be 20 coppers to the shilling, then a quarter of a pistareen would be exchangeable for 5 coppers. If states cried up the pillar dollar to other values, the value of cut pistareens increased pari passu. Spain also produced half and quarter pistareens.

Quarter cut pistareen 1725 #2115

A laborer today making $20 an hour in a 12-hour day would make $240; five days' pay would be around $1,200. Imagine if the only size bill they could pay you was a $1,000 bill (a similar wage to a crown back then) or a $200 bill (a similar wage to a pistareen back then). You would be desperate to have some loose change! Ireland, like America, also had a chronic small change problem.

With this background, any enterprising businessman who made halfpence and sold them in America or Ireland could make a fortune. Enter Mr. William Wood!

William Wood

Of humble Huguenot origin, and from Wolverhampton, England, William Wood (1671–1730) grew to own several copper, zinc and tin mines, and timber interests. His Huguenot descendants, named Dubois, had fled France after the St. Bartholomew's day Massacre in 1572.

After marrying Margaret Molyneaux in 1690, Wood started manufacturing iron hardware with his father-in-law, Richard. In 1714 he formed a partnership with Thomas Harvey, running a brass and iron mill. Wood did not pay Harvey for his

share of the mills. Harvey sued him, thus regaining several iron works. Three years later Wood partnered in building a coke iron blast furnace, a novel idea then. He became prosperous, and befriended Sir Robert Walpole, Great Britain's First Minister.

Wood needed royal permission to coin money. But George I had already granted a patent to coin money for Ireland to Charles Spencer, Third Earl of Sutherland (1675–1722), in gratitude for him serving as First Lord of the Treasury and as a prominent statesman.

"The Maypole", George I's "royal whore"

The Maypole

Ehrengard Melusine von der Schulenburg, (daughter of Baron von der Schulenburg, Privy Councilor to the Elector of Brandenburg) was a long-time mistress of King George I. She bore the king three illegitimate daughters but never married him.

Instead, George married his cousin Sophia Dorothea of Celle in 1682. The marriage provided him with 100,000 thalers a year. As crown sized pieces, this was equivalent to £25,000 a year! Sophia called him the pig snout! The marriage was unhappy and though she bore him the future George II, they divorced in 1694, and George I went back to his mistress Ehrengard.

When James II's Protestant daughter, Anne, died in 1714, an act of parliament had declared the next monarch must be Protestant. Anne's closest Protestant relative was George I from Hanover. In 1714 he became King George I of England, still hooked up with Ehrengard. Many Englishmen disliked George I, saying he did not even speak English, which was untrue.

The English called Ehrengard "The King's Whore". A fornicator she may have been, but King George showered her with titles: The Duchess of Munster, Marchioness of Dungannon, Baroness Dundalk, Duchess of Kendall, Countess of Feversham and Baroness Glastonbury! Somewhat anorexic, Germans called her "The Scarecrow", and the English "The Maypole", though her portrait does not suggest this.

King George I of England

She made a fortune selling public offices, including a patent to William Wood for Irish coppers (Hibernias) in 1722 for £10,000. Other sources say she charged £800 a year rent and a £200 sinecure to the King's Clerk and Comptroller of Coinage for fourteen years (totaling £14,000).

She had either persuaded the Earl of Sutherland (who had no interest in such a scheme) to give it to her, or more likely he gave it to her to curry favor. Five years later in 1727 George I died from a stroke on a trip back to Hanover. Ehrengard outlasted him by 29 years.

William Wood's patent

After Wood paid for the royal right to mint Hibernia coppers, he got the Maypole to have George I grant another patent to produce Rosa Americana coins. Breen says it cost Wood another £10,000. But the patent itself specified only £100 rent a year to the king's exchequer, and £200 a year to the King's Clerk and Comptroller of the Coinage (paid on March 25th, June 24th, September 29th, and December 25th, all feast days). Whatever the total cost, it was all pure graft. To put the bribes in a modern perspective, a laborer earned £20 a year, so £10,000 represented a laborer's wage for 500 years! Assuming a laborer earns $20 an hour today, this would be equivalent to a $20 million bribe today.

Wood moved to London and selected land to construct his mint at the French Change, Hogg Lane, in the "Seven Dials" district, a nasty slum area. The British have long used French words to label unsavory things. "French Change" may sound classy today, but back then it was derogatory. As soon as syphilis reared its ugly head in the 1500s, the English called it "The French disease". The French returned the favor by calling syphilis "La Maladie Anglaise" (the English disease)! The English called the toilet "lieu" meaning "the place" in French. The English still call it "the loo".

On June 16th, 1722, the Crown signed Wood's Hibernia patent, and ratified it July 22nd, 1722, allowing him to coin 360 tons of copper. They signed his Rosa Americana patent July 12th, 1722, allowing him to coin 50 tons of base metal a year for four years then 10 tons a year for 10 years (300 tons total). Ehrengard gave him six months to provide security for his annual payments, otherwise she would void the patent.

Seignorage is the profit from the difference between the face value and cost of making coins. This is what Wood thought he would get in spades if he could persuade Ireland and the American colonies to accept his coins.

Rare 1717 pattern halfpence, pence and twopence pieces exist. Numismatists have assumed these were Wood's patterns. But Walter Breen (see references) found no evidence of this and excluded these coins from his encyclopedia. The coins show George I's image on the obverse (the style of which looks different from the rest of Wood's coins) and a crowned denomination on the reverse. They show no rose and no mention of America. If they were patterns, they were not Rosa Americana patterns!

Another penny (undated) with a George I obverse shows a reverse with three roses (one large and two small – possibly representing England, Ireland and Scotland) with the legend "Rosa sine spina". However, the legend "Rosa sine spina" (thorn-less rose) was not new. Great Britain had used them on coins before (see below). Sidney Martin, who wrote the authoritative book on Rosa American coinage, assumes the date was 1724.

Scottish James I half groat 1605-6. Note Rosa Sine Spina legend on left, and crowned double rose. #2250

One of Wood's sons may have struck a similar penny dated 1727, and a twopence piece in 1733. All are rare.

Snelling's Coins of Great Britain

The most contemporary numismatic description of Rosa coinage is Snelling's *Coins of Great Britain, France and Ireland*. This is an important historical work, as it contains significant early details about many American colonial coins. He published the work, like Crosby's *Early Coins of America*, in fascicles. People usually bound these later into single books. Such books may not index the contents, so it is difficult to find your way around the book. Here is an index of Snelling's book:

1. A view of the gold coin and coinage of England published 1763, 53 pages.
2. A view of the copper coins and coinage of England. Published 1766, 46 pages.
3. A view of the silver coin and coinage of Scotland published 1774, 20 pages.
4. Miscellaneous views of the coins struck by English princes in France, counterfeit

sterlings, coins struck by the East India Company, those in the West India Colonies and in the Isle of Man. Published 1769, 53 pages.

5. A view of the origin, nature and use of jettons or counters published 1769, 16 pages.
6. Plates of coin engravings:
   a. 7 plates + 17 plates from William I
   b. 7 plates of copper coins
   c. 6 plates of silver, 3 plates of gold, 1 plate of billon and copper coins
   d. 7 plates of section #4
   e. 5 plates of jettons
   f. 12 supplementary plates.

The plates show beautiful line drawings:

Snelling's engravings of ½ d, 1d, and 2d top to bottom.

In section 4 are the American colonial coins from pages 35 to 40. Each page is 9¾" by 13½" i.e. folio size. He discusses Sommer Islands money, Massachusetts silver, paper money in the colonies, Baltimore silver, James II American Plantation tokens and Elephant Tokens. Wood's "Plantation Money" (Rosa Americana coins) appears on pages 39 to 40 including the 1733 pattern Rosa. He also records an unrealized 1754 plan to mint ½d, 1d, and 2d coppers for North Carolina.

Sizes and Weights

Sydney Martin in his grand opus, *The Rosa America Coinage of William Wood*, calculates Wood's costs to make Rosa coinage. Martin includes buying the metals, minting and transporting the coins, and paying for the patent (assuming Wood produced 300 tons over 14 years). He says each Rosa American penny would have cost 0.87 pence sterling to produce. This ignores the capital cost of a mint, the stevedores on each side of the Atlantic, agents, dispersing costs and discounts to merchants. He follows this up with the question: why did Wood produce a coin which cost 0.87 pence, when it would only pass for half a penny in the colonies?

A Rosa ½ d is similar in size to an English farthing (¼ d); a Rosa 1d is similar in size to an English halfpenny; a Rosa twopence coin is a similar size to an English penny. As mentioned before, an English halfpenny passed as a "copper" i.e. what the colonists called a "penny", though it may have taken 14 to 20 to make a shilling rather than 12 in England. Here is a listing of comparisons:

	Rosa	George I	George II
½d	21.5mm	¼ d 22mm	¼ d 23mm
1d	27.5mm	½ d 27mm	½ d 29mm
2d	32.5mm	no copper pennies	

Martin's calculations quote Snelling as saying the coins were a trifle more than ½ of their values (½d, 1d, 2d) in sterling, but actually Snelling says **1/6th not a half** (see fourth line from bottom):

There are three sizes of them, No. 25. 26. 27. made for an halfpenny, twopence, and a penny; the largest has round the King's head, GEORGIUS D. G. MAG. BRI. FRA ET HIB. REX. the other only GEORGIUS D. G. REX.; there are two different reverses, viz. a rose, and a rose and crown, both sorts inscribed, ROSA AMERICANA—UTILE DULCI, sometimes also the dates 1722 and 1723. *N.B.* If these were made only for 2*d.* 1*d.* and ½*d.* of their currency, and not sterling, they were not worth but a trifle more than ⅙ of those values in sterling, as the exchange in those years was 270 per Cent. and silver 14 *s.* per oz. We have a piece much like the penny in size, struck in the same metal, the head also nearly the same, inscribed, GEORGIUS D. G. FRA. ET HIB. REX. and on the

Page 39 of Snelling's view of the coins struck by East India Company and in the West India colonies.

Snelling states the exchange rate (between copper and sterling bullion) was 270% at the time. Thus, one shilling sterling was worth 2.7 shillings in copper bullion or 12 x 2.7 i.e. 32.4 bullion copper pence.

Likewise, a crown was worth 60 x 2.7 pence i.e. 162 pence or 13.5 shillings of copper bullion. A crown weighed 97% of a Troy ounce, thus one ounce was worth 13.5/0.97 = 13.9 shillings. This presumably is the origin of Snelling's 14 shillings per ounce statement. It did not mean that Wood was paying 14 shillings per ounce of silver to make his coin metal as Martin states.

Thus, if Wood was spending 0.87 pence to earn 0.5 pence, the whole deal would have been a non-starter (unless Wood was an idiot)! So what weights were the coins? Snelling states regal pence were 28 to the pound avoirdupois, however they allowed 4½ d for wastage at the Tower Mint, so the result was 23 ½ d per pound. Copper cost 18d per pound in 1732 (page 43 of Snelling's section 4). Thus 18 pence worth of bullion copper made 28 regal pence. Wood's Rosa patent specified 60 pence to the pound avoirdupois i.e. 7.56 grams per penny (very close to the average weight).

Wood struck 60 pence to the pound (retail price 18d). With Wood's metal of 75% copper (at 18d per pound avoirdupois) and 25% spelter or zinc (at 4.6d a pound) the retail value per pound fell to 11.6d. However, on page 453 of Sydney Martin's work, metallurgical analysis puts the metal at an average of about 53% copper and 46% zinc. Such a mixture would have retailed at 9.5d per pound. Thus, at list price 9.5 pence of bullion metal made 60 Rosa Americana pence equivalent to 30 regal pence, a 216% mark up before other expenses. However, Wood did not pay list price for the copper and zinc as he owned the mines.

Bath Metal

Wood advertised that his metal contained 0.3% silver, which he called Bath metal. He named it after Bath, a town 12 miles east of Bristol. Bath metal contained 75% copper and 25% "spelter" (poorly refined zinc). (Brass is 5–40% zinc, so this was another name for brass). But as pointed out above, metallurgical analysis of nine specimens in Sidney Martin's work, showed them to average 53% copper, 46% zinc, 1% trace metals like lead and 0% silver.

I have seen no evidence that Wood added silver. Had he added silver to every batch one would expect every coin to have some silver. Instead of looking like the usual golden brass, the coins look like a dark brown copper, as he included too much zinc or zinc slag in the metal mix.

Presumably Wood knew that some spelter had a tiny fraction of silver and used this for spin. One byproduct of Wood's enterprise was extracting silver, which he sold to the London Tower Mint. They called silver from the West England mines "Quaker's Money", as the silver came from a region where Quakers figured prominently as miners. Wood himself attended Quaker services and networked with Quakers.

In 1665 people worked calamine (zinc oxide) at Shipham and Rowberrow, Somerset, in the southwest of England. By 1700 brass foundries in Bristol in Western England demanded calamine. Though they used calamine to make brass, they often included slag, making the brass dark. Calamine often came with traces of other metals like silver, gold, copper iron and lead, though Wood's coins had no silver.

To make refined brass, manufacturers had to import metallic zinc from abroad rather than using the unrefined spelter Wood used.

Bristol, England was the center of brass and spelter. Spelter yielded a brass that was variable and not bright yellow like the brass we know.

The name of the rose

The name of the rose is actually a famous novel by Umberto Eco, set in an Italian monastery in 1327 made into a movie with Sean Connery. It sold over 50 million copies. But here I refer to why Wood chose a rose.

After the Wars of the Roses, Henry VII (1485–1509) of the House of Tudor created a double rose (red and white) combining the Houses of Lancaster and York. The mint then displayed this double rose on various coins.

During George I's reign (1714–1727) other devices appeared on coins including plumes for Welsh silver mines, the elephant and castle for African companies, VIGO for a naval victory, SSC for the South Sea Company and roses and plumes for western mining interests in England.

Brian Danforth in his article on the origins of the rose on Rosa Americana coinage says:

1. The rose symbolized Western England and its metal making.
2. The rose was also a provenance mark for the Tower Mint in 1631–1632. Wood started in London with his Seven Dials district mint.
3. There was a connection between the rose and "Quaker's money". Wood affiliated himself with the Quakers.
4. Western England had used the double rose as provenance mark and connected it to West England's metal industry.
5. Wood's Hibernia coinage had a harp on the reverse for Ireland. He could not use something nationalistic for his Rosa coinage that might express America's independence. The Crown never viewed America like Ireland, as a separate political entity. So, he settled on the rose.

Breen stated, "the double Tudor rose is ironic humor, falsely lauding him as successor to the Plantagenets and Tudors". George I, who was German, learned to speak English, but refused to read it. Breen's assertion that the double rose poked fun at George I would have been totally lost on George I and on American colonists!

"Utile Dulci" (useful and sweet or "business and pleasure") is taken from Horace, *Ars Poetica*, 343: "Omne tulit punctum qui miscuit utile dulci" (He took all the applause who blended sweet and useful). Eric Newman prefers the translation, "He won all the praise who mixed the useful with the sweet". I agree!

Production of Rosa coinage

John Roettier, the chief coin engraver retired in 1689 probably because of a Dupuytren's contracture. When advanced this can impair one's ability to use the hand. Henry Harris then became chief engraver (though he was not an expert die maker). Harris appointed John Croker, a jeweler from Dresden, as assistant engraver in 1697. When Harris died in 1705, Croker became chief engraver until he died in 1741. Croker likely engraved the Rosa coin dies. Snelling said Wood used the company of Lammas, Harold and Standbroke to make coins. This is incorrect. They were turners, hardeners and forgers of working dies, rather than die engravers.

Above 1723 South Sea Shilling, below Rosa American ½ d. Note engraving similarity of George I. #1919 & # 270

The Royal Mint ruled in 1706 that Mint Engravers could do outside work. Croker engraved tokens for towns and merchants, and medals for the English Vigo Bay seizure of Spanish bullion in 1702. Thus, Croker was an obvious choice to engrave the Rosa coinage.

The Rosa patent signed in July 1722 specified Rosa start minting in 1722. In those days the year started on March 25th, not January 1st. The year ended on March 24th. Just think January to March was the end not the start of the year. The modern calendar (New Style), in which the year starts on January 1st, started in 1752. One way of labelling Old Style is "double dating," e.g. February 1723/1722 is New Style first over Old.

From October to January 1722 Wood built the mint. He installed drop hammer presses to strike cast planchets. Workers filed the planchets edges before striking. The zinc content was so high they could not strike the planchets cold so they had to heat them before striking. The heating caused gas bubbles to form in the metal, which can cause porous surfaces and discoloration of the final coin. The coins are different sizes as they used no collars when striking the coins.

From January to March 1723/1722 he minted 1722 coins, and from April to June 1723 he minted 1723 coins. On June 18th, 1723, a fire destroyed his London mint.

He had also leased a mint in Bristol in January 1723/1722, where he was minting his Hibernia coinage. He may have transferred what remained of his stock of planchets and equipment for Rosa coinage to Bristol, about 120 miles west of London. From January to March 1724/1723 Wood prepared patterns for 1723/4 overdate Rosa coins, and he may well have continued minting some 1723 Rosa Americana in Bristol after the London fire.

Wood used Bristol for his Hibernia minting in the heart of copper mining country in the west of England — a more convenient port from which to ship coins to Ireland. The Hibernia patent allowed minting outside London, which the Rosa patent did not.

Poor circulation of Rosa coins

Wood sent out a small batch of Rosa coins to test the waters in America, but colonists rejected the coins. Why they rejected them I am not sure. In Massachusetts in June 1722 there was such a shortage of small change that they authorized £500 of parchment (leather) notes in 1d, 2d, and 3d denominations, so the Rosas should have been welcome. Mossman says the paper issue was to frustrate Rosa's introduction into Massachusetts. If so, I am not sure why.

Massachusetts Parchment Issue of 1722. Courtesy of Heritage Auctions HA.com

Some say the denominations made them unacceptable, but there were no denominations marked on the coins. English halfpenny sized coins would later pass as coppers in America. The Rosa penny of 27.5 mm weighed around 7.56 grams, whereas a regal halfpenny of 27 mm that it was replacing in America weighed 9.48 grams. The size was the same. How many people would have noticed the weight difference?

Perhaps English halfpence passing as coppers in the colonies happened later. Most coppers that colonial collectors see today are George III (1760–1820); some are George II (1727–1760). Maybe the colonies were not ready for them.

Perhaps the chronic lack of coppers pushed the colonies to accept anything that looked like a halfpenny starting in the 1740s and 1750s when Rosa Americana coins arrived in the colonies as "hardware" (more about this later).

Sydney Martin tabulates 66 US ground finds of which 65 are 1722 coins and one a 1723. He points out there are no recoveries from the British Caribbean or from Bermuda. Thirty four of the 66 finds occurred in Southern states, giving some credence to the idea that the coins circulated mainly in the south especially in the colony of South Carolina. Most new numismatic specimens today are from England not America.

There are no contemporary reports of Rosa coinage from the colonies until Benjamin Franklin's 1724 description, which may have been a rewriting of a Boston Newsletter report of October 1723.

In August 1724 Jonathan Swift (the Irish author who wrote Gulliver's Travels) wrote "*The Drapier's Letters*". Five virulent letters appeared from March 1724/3 through December 1724, smearing Wood and his Hibernia and Rosa coinage. He wrote under the pseudonym "M.B. Drapier". The letters contributed to Ireland's refusal to accept the Hibernia coins in Ireland, and the reluctance to accept Rosa Americana coins.

Thus, Wood's business plan failed. He likely accumulated hoards of the coins in England, some of which he paid to contractors, leading to more English than American circulation of Rosa Americana coins. Time was running out. In January 1724/1725 he stopped paying the yearly stipend to Matthew Barton, the King's Clerk and Comptroller of the coinage.

In 1725 Wood wrote to the Duke of Newcastle asking for some government help in getting the coins to circulate. Later in October 1725 the Duke wrote to the Governor of the Massachusetts Bay, recommending Wood's Rosa coinage. He sent similar letters to the Governors of Jamaica, Barbados, the Bahamas, Maryland, New Jersey, New York, South Carolina, Virginia, Pennsylvania, and Nova Scotia. But all to no avail.

England passed no laws mandating colonists accept the coins. By then Wood had stopped producing the coins for one and a half years. They still did not circulate. In August 1725 Wood surrendered both his Hibernia and his Rosa patents, apparently in return for £3,000 a year for eight years. He died five years later.

Electrotype of 1733 George II pattern # 134

I show the last piece of the series above. The reverse shows a crowned sprouting rose with the legend UTILE DULCI, ROSA AMERICANA 1733. Snelling thought it a pattern piece, and found no proposal for more coinage in 1733. Numismatists attribute the request for a pattern to one of Wood's sons — numismatic supposition!

Experts think they exported the accumulated casks of Rosa coinage in the 1740s and 1750s as "hardware" i.e. casks of coins, which would sell at a discount to American stores to give as change.

Notice that many of the coins shown ahead exhibit incomplete mixing of the zinc in the "Bath metal". This shows up as brassy areas on the coin. I have collected halfpennies, pennies and twopences from 1722 and from 1723.

A timeline of Wood's activities follows (New Style/Old Style double dating):

1722
June 16th, 1722 Hibernia patent signed
July 12th, 1722 Rosa patent signed
July 22nd, 1722 Hibernia patent ratified
Oct 1722–Jan 1723/2 London Mint construction
January 1723/2 Bristol Mint leased
Jan. to March 1723/2 Rosa production London
Feb to March 1723/2 Hibernia production Bristol
1723
April–June 1723 Rosa production London
June 18th, 1723 London Mint burns
Apr 1723–Mar 1724/3 Hibernia production Bristol
1724
Late March 1724 to Dec. 1724 five Drapier's letters
Jan. 1725/4 Wood stops King's Clerk stipend
1725
August 1725 Wood resigns patents
October 1725 Duke of Newcastle writes colonists

The coins
The obverses show a head right portrait of George I with the legend GEORGIUS D:G: MAG: BRI:FRA:ET.HIB:REX (George, by the Grace of God, King of Great Britain, France and Ireland).

The reverses show a double rose, sometimes crowned with the legend: ROSA AMERICANA UTILE DUCLI (American Rose — Useful and Sweet). Dates are 1722 or 1723. Rare patterns exist dated 1724. I show Rosas in all three sizes from 1722 and 1723 with some Red Book varieties like VTILE/UTILE, and uncrowned/crowned rose.

Wood stated no denominations on the coin, though they came in his sizes of halfpence, pence and twopence (equivalent to American farthings, halfpence, and pence).

References
Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American Coins*. 2009. Whitman Publishing, Atlanta , GA.
Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins*. 1988 Doubleday, NY.
Bureau of Labor Statistics. *History of Wages in the United States From Colonial Times to 1928 : Bulletin of the United States Bureau of Labor Statistics, No. 604.* https://fraser.stlouisfed.org/title/4126
Danforth, B., *Rosa Symbolism*. Colonial Newsletter, page 2937.
Kays, Thomas A., *When Cross Pistareens Cut Their Way Through the Tobacco Colonies*. Colonial News Letter April 2001, page 2169-2199
Martin, Sydney. *The Rosa Americana Coinage of William Wood.* 2011 C4 Publications, www.colonial coins.org
Mossman, P.E., *Money of the American Colonies and Confederation.* Numismatic Studies No. 20. ANS New York 1993.
Snelling, T., *Snelling On the Coins of Great Britain, France and Ireland &c.* M. Young, London. 1823 reprint. Page 39 of *A view of the coins struck by the East India Company and in the West India Colonies*. Part of the section titled: "*Miscellaneous views of the coins struck by English Princes in France, Counterfeit Sterlings, Coins struck by the East Indian Company*" etc. The Horn Tavern, London 1769
Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*. 72nd Edition. Whitman Publishing LLC Pelham, AL 35124
https://commons.wikimedia.org/wiki/File:George-I_lafontaine2.jpg
https://en.wikipedia.org/wiki/Melusine_von_der_Schulenburg,_Duchess_of_Kendal#/media/File:Melusine_von_der_Schulenburg_2.jpg
https://upload.wikimedia.org/wikipedia/commons/7/7b/Regional_profile_of_the_South_West.png

270

ROSA AMERICANA HALFPENNY 1722 UNCROWNED ROSE. MARTIN 2.1/B1; 21.5MM, 4.90 GRAMS EF

1664

Rosa Americana Halfpenny 1722 Martin 2.1/N1; 20.5mm PCGS XF 45

2180

ROSA AMERICANA HALFPENNY 1722 VTILE. MARTIN I.1/A.1; 21MM NGC VG 10

2490

ROSA AMERICANA HALFPENNY 1723 UNCROWNED ROSE. MARTIN 3.5/E.1; 21.5MM PCGS F 12

735

ROSA AMERICANA PENNY 1722 UNCROWNED ROSE. MARTIN 2.15/C.5; 26.5MM, 7.78GRAMS VF

1660

ROSA AMERICANA PENNY 1722 VTILE DVLCI. MARTIN 2.1/A.1; 26MM NGC VF

786

ROSA AMERICANA PENNY 1723 CROWNED ROSE. MARTIN 2.22/EB.6; 27MM, 7.75GRAMS VF

1309

ROSA AMERICANA TWOPENCE (1722) DATELESS. MARTIN 2.1/B.1; 32MM, 17.00GRAMS VF

694

ROSA AMERICANA TWOPENCE 1722. PERIOD AFTER REX. MARTIN 3.12/C.2; 32.5MM, 15.90GRAMS EF+

1661

Rosa Americana Twopence 1722. No Period After Rex. Martin 4.1/C.1; 31mm PCGS VF 30

2698

ROSA AMERICANA TWOPENCE 1723. CROWNED ROSE. MARTIN 3.5/E.5; 31MM PCGS AU 58

134

Rosa Americana Twopence Pattern 1733 Electrotype. Martin P357; 33mm, 14.10 Grams EF

CHAPTER FIVE
ROYAL AUTHORIZED BRITISH COINAGE
WOOD'S HIBERNIA COINAGE

It is true that Wood's Hibernia coinage was not royally authorized for America. But George I granted the Hibernia patent to Wood at the same time as the Rosa Americana patent, so we often consider the two as siblings. I have given a lot of details of this in the previous chapter.

English control of Ireland
In 1171 King Henry II of England arrived in Ireland, exerting authority over Irish lords. The treaty of Windsor confirmed his primacy in 1175. The King of England thus became Lord of Ireland. In 1542 King Henry VIII of England made himself King of Ireland.

After increasing Protestantism in England during Henry VIII's reign, people discriminated against Catholics. Much of Ireland remained Catholic. But Irish laws deprived Catholics of rights like inheriting property, or becoming members of the Irish Parliament.

The Hibernia patent
In an era when monarchs could give privileges freely as a royal favor, George I gave Lord Sutherland, a prominent diplomat, a patent to mint coins for Ireland. But Sutherland was not interested and tried selling the patent. Finding no interest, he gave the patent to George I's mistress, "The Maypole", (perhaps seeking other favors).

William Wood (1671–1730), a partner in a large iron and steel partnership, had another partner, Robert Sparke, a brazier (one who makes brass objects) and ironmonger to George I.

With these connections Wood became friends with Sir Robert Walpole (later England's first Prime Minister. After 1696, the last year of Irish regal coinage, Ireland ran short of change.

Already wealthy with copper, iron, tin and spelter (zinc) mines in West England, Wood negotiated for the Hibernia coinage patent with George I's mistress "The Maypole" (so-called because she was very thin). She got George to resign the old Sutherland patent and grant it to Wood in 1722, for a bribe of a mere £10,000 (equivalent in working wages to $20 million today)!

The cost of doing business
The patent also specified £800 a year rent to the king and £200 a year stipend to the King's Clerk Comptroller for 14 years. It seems this was on top of the original £10,000 adding up to a total cost of £24,000. As the patent authorized Wood to mint only £100,800 in Irish coppers, this seems a steep price to me. Wood minted copper pence at 30 to the pound avoirdupois (in contrast to regal coppers at 23 to the pound). A pound of copper retailed at 14 pence at the time according to Snelling. Thus, before he even started preparing planchets and dies, minting coins and shipping and distributing the coins, his costs were theoretically:

£10,000 for the patent
£14,000 for rent and stipend to King's Clerk
£47,040 cost for copper at 14 pence a pound and assuming 30 pence to the pound avoirdupois
£71,040 Total

Sydney Martin in his book *The Hibernia Coinage of William Wood*, shows him losing £8,917 on the deal after other expenses. What was the catch?

1. Wood mined his own copper, so it did not cost him 14 pence a pound. He may have been looking for a market for his copper.

2. Wood could have made underweight or adulterated coins. But he did not. He suggested Sir Isaac Newton, Master of the Royal Mint, weigh and assay his coins when accused by the Drapier letters (more about this later). Newton actually assigned his nephew, John Barton, to do the work, who confirmed that the coins were good copper and good weight.

3. They allowed Wood to coin 28% of the total coins in the first year, so theoretically he could retire the patent thus avoiding further rent. But he would still have incurred a patent, rent and copper cost of £24,066. And his total income would only have been £27,900. Such a profit margin is too close to call.

It looks as though the business model may have differed from our thoughts about it. Perhaps Wood needed an outlet for his copper mines and thought this business could get him a contract to supply the Royal Mint with copper, and another contract for his Rosa Americana coinage.

Please see the previous chapter for details of Hibernia and Rosa coinage. The Crown ratified the patent on July 22nd, 1722. Wood leased space in Bristol in West England in January 1723/2 to mint the Hibernia coins using a drop hammer press. Recall, before 1752, the end of the year was March 24th, not December 31st.

Wood minted the 1722 coins in January and February 1723/2. He likely shipped these coins to Ireland in February and March 1723/2. Wood minted 1723 coins throughout 1723, and 1724 coins from April to June 1724 (early 1724)

Distribution of the coins

Ireland was desperately short of small change. Hibernia coins were good copper, though 23% under regal weight and measured 25 to 27mm (regal halfpence were 27mm). Most would not have noticed the difference. Merchants eagerly accepted the coins.

A year later, in 1724, Jonathan Swift wrote political pamphlets, later called "The Drapier's Letters". This led upper class Irish patriots to reject the Hibernia coinage.

The Irish Parliament petitioned King George to revoke the patent, complaining of weights of 30 rather than 23 to the pound (although they had virtually no change and what they had was worn thin as a bone!)

Johnathan Swift

Born in Dublin, Ireland, in 1667, Jonathan Swift attended Trinity College, Dublin. He suffered from Meniere's disease (which causes episodes of ringing in the ear, deafness, and vertigo). After travelling to England, he got an MA from Oxford. Four years later he returned to Ireland as a rural priest for a few years. Bored with this, he then returned to England.

Sir John Temple, a prominent English diplomat, had mentored him, but Temple died in 1696. Swift thought Temple's connections would land him a nice sinecure, but all he got was a post as secretary and chaplain to the Earl of Berkeley, one of the Lords Justice of Ireland.

Bust of Johnathan Swift in St. Patrick's Cathedral

On returning to Ireland he discovered someone else had already taken the secretarial position! So, he lived the life of a country gentleman in a vicarage close to Dublin as a part time Protestant chaplain.

He spent his days in Dublin and London, writing satire and poetry. In 1702 he graduated with a doctorate in divinity from Trinity College Dublin. That year, his previous eight-year-old pupil whom he had tutored in England in 1688, moved in to live with him. Her name was Esther Johnson, but he called her Stella. Thirteen years his junior, their relationship was enigmatic. An ordained chaplain needed propriety though some think they married in secret.

Swift became increasingly well known in literary circles. He wrote books, notably Gulliver's Travels (actually a complex political satire). Swift made friends with Alexander Pope and Thomas Sheridan. While in London he became infatuated with another Esther; this time a 16-year-old named Esther Vanhomrigh.

Swift became part of the inner circle of the Tory government in England and was again hoping for an appointment as an English bishop. But the best he could get was the Dean of St. Patrick's Cathedral in Dublin. It was not just his womanizing (there were other women), but his lack of tact at court that lost him the sinecure. When George I ascended the throne in 1714, the Whigs forced out the Tories. Having lost power and influence, Swift returned to Ireland. He turned to writing and political pamphleteering, supporting Irish causes.

Irish 1981 B series £10 note showing Jonathan Swift. Courtesy of LeftoverCurrency.com

The Drapier's Letters

Swift wrote seven pamphlets attacking Wood's patent and the Hibernia coinage, making the following points:

1. The coins were inferior in quality (actually, they were infinitely superior to the vast majority of circulating contemporary Irish coppers).
2. The licensing of the patent was corrupt (it certainly was)!
3. The coins were underweight (not according to the patent, but certainly as compared to British regal coppers).
4. The coins were undersized (untrue).
5. By introducing so many inferior coins, according to Gresham's law (bad money drives out good), this would cause silver and gold to leave the country. Not quite! Bad coppers make people hoard good coppers, but there were no good coppers! It would not have made silver and gold leave the country.
6. Wood made the coins of inferior metal (not according to Sir Isaac Newton's nephew's assays).
7. As Wood minted the coins privately the Irish could not contest the quality and quantity of the coins (true).
8. Wood's patent was one of many economic practices which hurt Ireland (probably true).
9. If the Crown paid English soldiers with Hibernia coins in Ireland, that forced the Irish to accept them (true).

Here are some details of his seven letters:

#1 "A letter to the Shop-keepers, Tradesmen, Farmers, and Common-People of Ireland". Late March 1724/1723. By using a draper pseudonym (M.B. Drapier) for his first pamphlet he identified with the common man in Ireland and protected himself from accusations of sedition. But everybody knew who he was. Swift was crafty: he attacked Wood and his bribe rather than George I or his mistress. He also swore fidelity to the king. But the letters were treasonous, particularly when Swift argued for Irish independence from England.

His arguments were tenuous. Citing Gresham's law, he claimed low-weight coppers would drive out silver and gold from the country, so that tenant farmers could not pay rents, leading to mass starvation. This was a bad "reductio ad absurdam" argument.

#2 "A letter to Mr. Harding the Printer". August 1724. Swift blames the Whig party (Swift was a Tory). Despite the Mints approving assays, Swift implied the assays were all Wood's propaganda and lies, accusing him of "high treason".

#3 "To the Nobility and Gentry of the Kingdom of Ireland". August 1724. Still writing as a humble and simple draper (cloth and sewing merchant), Swift disputed England's authority over Ireland because they did not consult with the Irish Parliament before issuing the coins. He portrayed Ireland as a biblical David, fighting the Goliath, England.

#4 "To the Whole People of Ireland". October 1724. Swift argued for Irish political freedom, arguing against England rather than against the king, to avoid charges of sedition.

#5 "A letter to the Honorable the Lord Viscount Molesworth December 1724. Swift urged the Irish to remember that Sir Robert Walpole had promised to end the patent. Swift then attacked the Lord Chief Justice of Ireland for convicting John Harding, who had published his treasonous letters.

#6 A private letter to Lord Chancellor Middleton of Ireland. October 1724. Swift writes as himself, the Dean of St Patrick's Cathedral, espousing and re-hashing the arguments of previous letters.

#7 An Humble Address to Both Houses of Parliament. June 1725. This went unpublished. The Crown had just withdrawn the patent.

Boy! Was Swift lucky! Everyone knew he wrote the letters, embarrassing the king. But the Crown never charged or arrested him. By 1738 he likely developed dementia, as guardians were appointed to take care of his affairs. In 1742 he suffered a stroke, becoming unable to speak, dying three years later aged 77.

Opposite is the title page from a volume of some of his collected works, showing Swift as Dean of the Cathedral in his Dean's chair. A disheveled person lies on the floor (? Wood), with coins lying scattered on the step below him. The Latin label is a pun meaning, "I have made a monument more lasting than bronze (Wood's coins)". However, the word for bronze could also mean Ireland with the translation, "I have made a monument to Ireland forever".

What became of the Hibernia coins?

In August 1725 Wood resigned his patent for a £3,000 a year pension (for three years according to Breen, but for eight years according to Martin). So, he did not do so badly after all! Hibernia coppers likely continued to circulate in Ireland, as soldiers received them in pay, and there was a severe shortage of change.

In 1736, George II started minting regal coppers for Ireland again. The next year England told royal revenue collectors to limit the number of Wood's Hibernia coppers for each transaction and told the army to limit their use for soldier's pay.

After 1736, profiteers bought up Wood's coins as copper bullion and sent it to the Americas as casks of "hardware". Shippers sold it to merchants at a discount to use as change in the late 1730s and 1740s where a halfpenny passed as a copper. 12 to 24 coppers made a colonial shilling, depending on the state and time period. The Hibernia coppers circulated in New England and adjacent New York, New Jersey, and Pennsylvania.

The allegory of Hibernia on the reverse first appeared on the 1691 Limerick coppers, the last gasp of gunmoney (see chapter 19 for pictures).

Title page from Collected works of Swift 1735

References

Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American Coins*. 2009. Whitman Publishing, Atlanta , GA.

Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins*. 1988 Doubleday, NY.

Bureau of Labor Statistics. *History of Wages in the United States from Colonial Times to 1928: Bulletin of the United States Bureau of Labor Statistics, No. 604.* https://fraser.stlouisfed.org/title/4126

Crosby, S., *The Early Coins of America.* 1875 Published by the author. Boston

Martin, Sydney. *The Hibernia Coinage of William Wood 1722-1724.* C4 Publications, www.colonial coins.org

Martin, Sydney. *Wood's Hibernia Farthings An Analysis & Categorization*. Colonial Newsletter November 1994, pages1457-1464

Mossman, Philip L., *Money of the American Colonies and Confederation*. ANS, NY, NY. 1993

Snelling, T., *Snelling On the Coins of Great Britain, France and Ireland &c.* M. Young, London. 1823 reprint. Page 39 of *A view of the coins struck by the East India Company and in the West India Colonies*. Part of the section entitled: "*Miscellaneous views of the coins struck by English Princes in France, Counterfeit Sterlings, Coins struck by the East Indian Company*" etc. The Horn Tavern, London 1769

Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*. 72nd Edition. Whitman Publishing LLC Pelham, AL 35124

https://commons.wikimedia.org/wiki/File:St._Patrick%27s_Cathedral_Swift_bust.jpghttps://en.wikipedia.org/wiki/Drapier%27s_Letters#/media/File:Swift_works.png

693

WOOD'S HIBERNIA FARTHING 1723 HARP RIGHT. MARTIN I.1/BC.1; 21.5MM, 3.98 GRAMS UNC

1659

Wood's Hibernia Farthing 1724 Harp Right. Worn Reverse Die. Martin 3.9/D.1; PCGS EF 40

1595

WOOD'S HIBERNIA HALFPENNY 1722 HARP RIGHT. MARTIN 4.6/C.4; 26MM VF

787

WOOD'S HIBERNIA HALFPENNY 1722 HARP LEFT. MARTIN 4.1/BC.1; 27MM, 7.06 GRAMS AU

292

Wood's Hibernia Halfpenny 1723 Narrow 3. Martin 4.82/Gc.14; 26mm, 6.88 Grams VF

864

Wood's Hibernia Halfpenny 1723 Wide 3. Martin 8.2/Gb.12; 26mm, 7.89 Grams AU

736

WOOD'S HIBERNIA HALFPENNY 1723 OVER 1722. MARTIN 3.4/DB.1; 27MM, 7.85 GRAMS VF

293

WOOD'S HIBERNIA HALFPENNY 1724. MARTIN 4.51/K.4; 26MM, 7.45 GRAMS VF

#674

WOOD'S HIBERNIA HALFPENNY 1724. FANTASY ELECTROTYPE HARP LEFT; 27MM, 6.32 GRAMS EF

2810

ERIC NEWMAN'S WOOD'S HIBERNIA FARTHING SILVER PATTERN. SAID TO BE UNIQUE AT THE TIME. MARTIN 3.3/BC; 21.5MM, 4.80 GRAMS PCGS SP 58

CHAPTER SIX
ROYAL AUTHORIZED BRITISH COINAGE
REGAL HALFPENCE AND FARTHINGS OF 1749

As John Kraljevich, a prominent colonial American numismatist, points out, the English King George II, whose image these coins display, died sitting on the toilet. He was already blind in one eye and hard of hearing. Aged 77, he had lived longer than most of his predecessors. His valet heard a loud crash from the toilet and found him on the floor. A post mortem showed that he had died from a thoracic aortic dissection, a mercifully quick death.

Now we have the important stuff out of the way, I will proceed with the boring stuff!

Halfpenny sized coins circulated in America as "coppers" at 12 to 24 to the shilling (varying according to time and colony). The commonest colonial coppers were counterfeit halfpence. Many came from Machin's Mills in New York State (especially the 1775 issue). Others came from England where they also made evasion halfpence. Evasion pieces had legends like WILLIAM SHAKESPEARE instead of GEORGIVS, to avoid English counterfeit laws (though most laborers and farmers could not read in those days).

After the 1775 counterfeit coppers, 1749 regal coppers were the commonest circulating copper date in America. The reason harks back to the 1745 Siege of Louisbourg. The Siege was the largest battle in King George's War (1740–1748), the name given to the North American part of the War of Austrian Succession (1740–1748).

During the War of Austrian Succession, France allied with Bavaria, Saxony, and Spain. They wanted to put Charles Albert, Elector of Bavaria, onto the Hapsburg throne. Why? So, France could cripple her long-time enemy, Austria.

A series of battles took place between France and Britain over their colonies in North America and in India.

In October 1740 Austrian King Charles VI died. He was the last male head of the Austrian branch of the house of Hapsburg. Two months later Frederick II of Prussia invaded Silesia, to help France seize this wealthy province from Austria. A month later France allied with Bavaria and Spain against Austria. Britain entered the war to help the Austrian ruler, Maria Theresa (Charles VI's daughter). England feared that if France controlled Europe, the British Empire's position might be tenuous. It is all too complicated!

This was also part of a long series of struggles for hegemony in Europe between France and Britain, from 1689 until the battle of Waterloo in 1815. Some say Napoleon lost because of a bad attack of hemorrhoids! France had also supported the English Catholic King James II. They also helped his Catholic son James (the old pretender) to return to England to try to regain his throne. They helped again when James' Catholic son (the young pretender), "Bonnie Prince Charlie", tried to regain the throne in 1745. The English defeated Charlie at the battle of Culloden in 1746 and he fled.

Map showing Louisbourg on Cape Breton Island.

The French had spent 30 million livres (about 5 million crowns) over 25 years to fortify Louisbourg. It controlled the entrance to the St Laurence River into French Canada. Their ships also menaced British ports in British North America.

In 1744 the French captured 50 English families living in a nearby fishing port of Canso. They took these families to Louisbourg where they allowed them to roam freely. Eventually the French released them to Boston where they became important intelligence for a plan to take Louisbourg.

In 1745 William Shirley (Massachusetts Governor) and Benning Wentworth (New Hampshire Governor), asked surrounding colonies to help send colonial troops to take Louisbourg. Both Governors were British appointees. Colonist William Pepperell commanded the troops, and Captain Edward Tyng the 90 ships. Sir Peter Warren, chief of the West Indies British Royal Navy station, supplied the warships.

Forty-two hundred colonial soldiers sailed in 90 ships in late March 1745. After provisioning, they landed on Cape Breton Island on May 11th. Their objective: to seize the French Fort Louisbourg on the tip of present-day Cape Breton Island Nova Scotia. It took six weeks of battles, bombardment and sieges before the French surrendered on June 28th. On hundred British colonists suffered wounds or died, to France's 130. Nine hundred colonists died of disease to France's 300. Fourteen hundred French surrendered.

A British Royal Navy Captain, William Montague, of Massachusetts stock since 1630, fought in the siege of Louisbourg. He lost both his son and nephew there. Sir Peter Warren chose Montague's ship "The Mermaid" to carry news of the victory to London in 1745.

Colonists, especially in Massachusetts, found the provisioning of 4,200 colonial troops and 90 ships an expensive undertaking. They sought compensation from England, who promised to reimburse them. Four years passed but nothing happened. Sir Peter Warren by then had retired from the Royal Navy and had become a Member of Parliament. He helped to get Parliament to repay Massachusetts. Massachusetts also hired their own lobbyist, William Bollan to push for reimbursement.

Colonists in Massachusetts and New England had lost loved ones and suffered financial loss. Imagine their outrage when Britain returned Louisbourg to France! They did this in exchange for Madras, India, at the Treaty of Aix-la-Chapelle in 1748. Most other belligerents returned to the pre-war status quo except for Prussia which gained Silesia.

Silver Medal of Bois-le-Duc Celebrating Treaty of Aix-la-Chapelle 1748. 28.3mm, 6.51 grams #2893

On June 28th, 1749, the British Parliament approved an Act to pay Massachusetts. After Sir Peter's and William Bollan's commission, and gratuities to Captain Montague, they sent around 650,000 ounces of silver and 10 tons of coppers almost all dated 1749 (23% of London's Tower Mint copper output for 1749) to Boston. Different people give different figures but they are all very close. The best is to quote Crosby who listed the original invoice of the English agents:

The following extracts are from the invoice of the agents :—

"Invoice of Silver and Copper purchased by Order of the Honourable the Great and General Court of His Majesty's Province of the Massachusetts Bay in America by the Hono^ble Sir Peter Warren, Knight of the Bath and William Bollan Esquire, shipped on board His Majesty's Ship Mermaid, Captain John Montague Commander, bound to Boston for Account and on the Risque of the said Province to be delivered to the Treasurer of the Same for the Time being. Viz^t.

"M. B

N° 1 @ 206 Chests each containing 3000 Ounces of milled pss of 8/8 in Bags	618,000
207 @ 214 containing each 3000 Ounces Pillar pss of 8/8	24,000
215 containing Halves D°	3,000
216 containing 1000 oz Halves D°	
876¾ mixt D° 281½ milled	3,000
423½ D° Half 418½ D° Small	
"217 containing milled pss of 8/8	2,000
"Total Six hundred and fifty thousand Ounces	650,000"

"Copper coined in Halfpence & Farthings bought at His Majesty's Mint. Viz^t.

Tons	Cwt		
7	18	of Halfpence @ £10 11 4 ℔ Cwt	1699 10 8
2	2	of Farthings @ £10 10 4 ℔ Cwt	441 14 0
10		Tons cost	2111 4 8"

Among the expenses are:—

"Paid for 100 Casks @ 1/9 each	8 15 0
Paid to Porters for loading them	10
"Paid Fees at the Custom House, to the Searchers and for Officers attendance at the Bank	9 5 0
Paid George Clark, Carrier, for Carriage of the Silver and Copper from Southwark to Portsmouth, and for the Hire of Vessels to carry it on board the Mermaid	157 1 0
Paid the Escort of a Sergeant and twelve Men who guarded the Money to Portsmouth	24 13 6
Paid Charges upon the Road and at unlading at Portsmouth	3 10 10
Paid the Searchers at Portsmouth	10 6"

Crosby page 228 of *The Early Coins of America*

Other sources quote 213 chests of silver as opposed to 217, and differing quantities of halfpence and farthings. The casks together had over 800,000 halfpennies and over 400,000 farthings. The record on the previous page shows that Spanish milled dollars (from 1732 to 1749) were the commonest silver coin, and that only two boxes had fractional silver, mainly 4 reales pieces. They shipped £183,649 sterling, or £244,866 in Massachusetts currency (one third more). One Spanish milled dollar was four shillings and six pence in sterling, cried up to six shillings in Massachusetts currency.

Each silver chest weighed 3,000 Troy ounces or 205 pounds (they weighed silver and gold as Troy ounces, but copper as avoirdupois ounces). The silver weighed 20 tons. And the copper weighed 10 tons (100 casks each weighing 224 pounds).

1758 Mexican Pillar Dollar 39mm, 26.93 grams #540

So why did British Captain Montague get a gratuity? It was he who sailed back from Portsmouth, England to Boston to carry the coins. He commanded his new British ship, also named the Mermaid. This new ship had only 24 guns, unlike his 54-gun ship in 1745.

When the Massachusetts Treasurer William Foye received the money, no one had thought where to put 30 tons of coins. Colonists voted to build brick arches in the cellar of Foye's house to support the 205 to 224-pound coin chests and casks on the floor. They did not release the coins until four months later, in January 1750/1749. Massachusetts worried they might run short of small change because it might all leave the colony. So, they issued paper money in denominations of:

1d	1/72 of a Spanish Milled dollar
3d	1/24 of a Spanish Milled dollar
4d	1/16 of a Spanish Milled dollar
6d	1/12 of a Spanish Milled dollar
9d	1/8 of a Spanish Milled dollar
18d	1/4 of a Spanish Milled dollar

£3,000 of silver sterling ($10,000 Spanish Milled dollars each at 72 pence or six shillings Massachusetts valuation) backed this paper.

On January 26th, 1750/1749, the Massachusetts legislature passed a bill to use the money to redeem silver for all outstanding paper currency (£175,000 in Massachusetts value). They made the following conditions:

- People had to exchange all paper by March 31st, 1750, for silver at 80 pence to one ounce of silver.
- Passing paper money after March 31st was punishable by law.
- They made it illegal to pass notes of any other colony in Massachusetts.
- Only Massachusetts residents could redeem Massachusetts paper for specie.

People snapped up the specie as soon as they could. They had grown tired and suspicious of so many Massachusetts emissions of depreciating paper currency. Paying off the paper with specie had an astounding effect. Their economy quickly outstripped their neighbors. Massachusetts became known as the "hard money colony".

Britain also distributed another £115,000 to the rest of New England in 1756, "as a free gift and reward for past services against the French". Mossman comments that England only gave the colonies about a quarter of their incurred French and Indian War expenses.

References

Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American Coins*. 2009. Whitman Publishing, Atlanta, GA.
Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins.* 1988 Doubleday, NY.
Crosby, S., *The Early Coins of America*. 1875 Published by the author. Boston
Kagin, D., First Attempts at Banking in America. The Numismatist. May 1973, pp 745-754. www.money.org
Kraljevich, J., *The Coins of the Mermaid*. Numismatist, January 2006, page 61-64. www.money.org
Mossman, P., *Money of the American Colonies and Confederation.* American Numismatic Society. 1992
Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*. 72nd Edition. Whitman Publishing LLC Pelham, AL 35124
http://ontheworldmap.com/canada/province/quebec/map-of-quebec-with-cities-and-towns.jpg
https://en.wikipedia.org/wiki/HMS_Mermaid_(1749)
https://coins.nd.edu/ColCoin/ColCoinIntros/Br-Copper.intro.html

1031

Regal Halfpenny George II 1749. S-3719; 29mm, 9.48 Grams UNC

1049

REGAL FARTHING GEORGE II 1749. S-3722; 23.5MM, 4.94 GRAMS AU

CHAPTER SEVEN
ROYAL AUTHORIZED BRITISH COINAGE
VIRGINIA HALFPENNY 1773

Historical background

In his 1956 monograph, *Coinage for Colonial Virginia,* Eric Newman says the 1773 Virginia halfpenny was the only royally authorized coin for America with full legal tender status. Other royally authorized coins, he called "unofficial token money". Virginia was also the only colony with royal authorization to mint its own coins as part of their original charter in 1606. Newman points to section 10 of the Virginia Charter of April 10th, 1606, authorizing patentees "to make a coin to pass in Virginia… of such metal… as councils shall limit and appoint".

Charles I (1625–1649) proposed that royal farthing tokens pass in Virginia, but Colonists felt they were too lightweight (bullion copper comprised only 5% of their token value!)

Charles I patent farthing CC292; 16mm, 0.37 gms #1844

Archeologists have found patent farthings like the above at the Jamestown site of the first permanent British settlement in America.

The Virginia Assembly of 1637 to 1638 asked for £5,000 a year of a silver coin issue, giving 10% profit to the maker (presumably the Crown). But Charles I granted only a license to Lord Maltravers to make farthing tokens. Maltravers never coined for America.

In 1645 Virginia passed an act to coin 10,000 pounds avoirdupois of copper tokens in 2d, 3d, 6d, 9d, to substitute for tobacco. Nothing further happened.

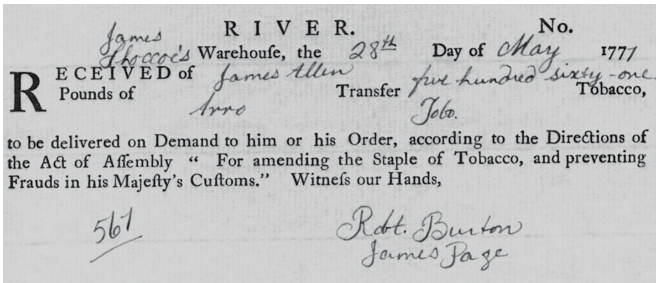
Virginia passed Acts in 1710 and again in 1727 requesting the Crown allow English coppers to circulate in Virginia. The Crown turned a deaf ear.

In 1713 Sir Isaac Newton, Director of the Royal British Mint, proposed copper coins pass at bullion value (excluding manufacturing cost). But the Royal Mints had no wish to abandon profitable seignorage (the difference between the cost of manufacturing coins and their nominal value). Balancing exchange values of silver and gold created enough problems. Three metals would have been a nightmare!

In 1756 Lt. Governor Robert Dinwiddie wrote to the Lords of Trade suggesting poll and land taxes and separate coins for America. He also pointed out that for many years the French made coins for the colonies. Again, the Crown turned a deaf ear.

A year before this, Virginia authorized paper money to pay for the French and Indian War (1754–1763). They used money of account in colonial pounds, shillings and pence (different from sterling pounds, shillings and pence). They paid off such accounts in tobacco or foreign coins (mostly Spanish). Virginia valued the new Mexican 1732 Spanish milled dollar at 54 pence sterling (Newman says 56 pence sterling).

Spanish Milled Dollar or Pillar Dollar 1770 #1432



RIVER. No.

RECEIVED of James Hoccoc's Warehouſe, the 28th Day of May 1771
Pounds of James Allen Transfer five hundred sixty-one Tobacco,
Inve Jobo.

to be delivered on Demand to him or his Order, according to the Directions of the Act of Aſſembly "For amending the Staple of Tobacco, and preventing Frauds in his Majeſty's Cuſtoms." Witneſs our Hands,

561 Robt. Burton
James Page

Tobacco Transfer Note 1777 courtesy of Colonial Williamsburg Foundation.

Under George III (1760–1820), the Royal Mint made no English coppers until 1770. In 1769 Virginia passed an act for Virginia to buy £2,500 sterling worth of coppers. On February 11th, 1771, Lord Hillsborough, Secretary of State for the American Colonies, corresponded with Lord Dunmore, Virginia Governor, saying that a more token copper coinage as used in Ireland might be more appropriate.

Lord Dunmore, Virginia Governor 1771-1775

The Royal Mint coined English regal coppers at 23 pence to the pound avoirdupois after 1717 and Irish coppers at 26 pence to the pound avoirdupois after 1733. Wood coined Rosa Americana (1722–1724) at 30 pence to the pound avoirdupois.

Gov. Dunmore asked their unofficial English agent, Mr. John Norton, to push for Virginia coinage at 26 pence to the pound (as Lord Hillsborough had identified Irish copper minted at 26 to the pound).

John Norton (1719–1777) started his mercantile career in Yorktown, working for the company of *Flowerdewe and Norton*. His friend and neighbor Robert Carter Nicholas took over from him as York County representative in the Virginia House of Burgesses. (Nicholas later became Treasurer of Virginia). Norton returned to live in London in 1764. His son, John Hatley Norton (1745–1797), took over the Yorktown business in 1766. In England, John Norton's firm was *John Norton and Sons*, with shipping and trading interests in Virginia tobacco.

On December 2nd, 1771 Lord Hillsborough wrote again to Lord Dunmore, bullshitting around, saying 27 pence to the pound was too much, suggesting 30 pence to the pound. Hillsborough also suggested in his letter that Virginia might like to start off with £1,000 not £2,500 of coppers, "which you will observe from the Account I sent over of the Irish Coinage will amount to five Tons of Copper".

The Virginia House of Burgesses promptly did what many politicians do. They formed a committee! A year later the committee said yes! They did not comment on how many pence to the pound, but they minted them at 30 pence to the pound.

Minting the coins

Virginia suggested designs and mottoes. In the summer of 1772, Virginia agent in London, John Norton, bought £400 sterling worth of copperplate ready to coin. This was only enough for 365,000 halfpence. He bought more later. In August the inept Hillsborough resigned; Lord Dartmouth replaced him.

On May 20th, 1773 the Crown authorized up to 25 tons of Virginia coppers. Virginia only wanted 5 tons. Copper plate of the correct thickness retailed at 15 ¾ pence per pound avoirdupois to the Tower Mint at the time. Final production costs were 0.334 pence sterling for each Virginia halfpence (or 0.43 pence in Virginia money as Virginia money then passed at 25% more than sterling).
Presumed costs in sterling were:

Rolled copper plate	£735
Wastage, dies, workmen etc.	£200 & 4 shillings
Shipping	£64 &16 shillings
Total for 672,000 coins	£1,000

On 14th March 1773, John Sigismund Tanner retired as Chief Engraver at the Royal Mint. Richard Yeo took his place. Yeo rose to

prominence with his beautiful medal (below) of the Battle of Culloden, where the English defeated Bonnie Prince Charlie, James II's Catholic grandson. A founding member of the British Academy of Art, Yeo also collected coins. Thomas Pingo became the Assistant Engraver at the Royal Mint, more famous as a medalist.

Yeo's Culloden Medal 1746 when Yeo was 26
Courtesy Heritage Auctions. HA.com

Thomas Pingo 1714 – 1776, famous medalist
Courtesy of National Portrait Gallery, London, UK

As the Mint made 40 obverse and 30 reverse dies, it is likely that Yeo and Pingo both made the dies (though Breen states that Yeo did the halfpenny dies and Pingo did the silver 1774 proof dies — more about this later). Seventy dies would be a lot for one person to produce in a four-month period, though I am not sure how many die engravers the Royal Mint had. The Royal Tower Mint in London struck the coins.

In June 1773 the Royal Mint struck some large planchet proof halfpennies with a six-string harp reverse (1-A variety). Numismatists now call these pennies (they are not; they are proof halfpennies). They used the same dies as the halfpenny but struck them on a large Irish half penny blank of 8.75 grams (i.e. 26 pence to the pound avoirdupois as used in Ireland after 1733). These measure 27–28 mm, rather than 25–26 mm for the usual Virginia halfpenny. They sent these trial samples to Virginia on July 31st 1773, on one of John Norton's ships.

The smaller 25–26 mm planchet cutter arrived after they had shipped the proofs, and minting took place in August and September 1773. William N. Veach (see references) theorizes that the mint used some 7-harp string dies, then 8-harp string dies, then prepared a 9-harp string die, which they never used.

St. Patrick halfpence (struck in Dublin from 1663 to 1672) also have differing numbers of harp strings. My examples of Wood's Hibernia coppers have 8 to 11 harp strings. Some say these are private devices, rather than random artistic fluctuations, and are perhaps for identification. If so, it seems more likely to me it would identify different engravers, than to represent a strict temporal sequence.

Dispersing the coins

Once they minted the five tons of coins, they transported them in casks as ballast on one of John Norton's ships *The Virginia*. They arrived on February 14th or 24th, 1774 (depending on the author) under a Captain Howard Esten.

At 30 pence a pound (or 60 halfpence), five long tons made 672,000 halfpence (£1,400). Casks held two hundredweight of "hardware" i.e. 224 pounds avoirdupois. Five tons was 50 casks.

When the coins arrived in February, our friend, Virginia Treasurer, Robert C. Nicholas, refused to release the coins until the king authorized their circulation. Never mind that the King had

authorized the manufacture and shipping! Until the King authorized their circulation, Treasurer Nicholas forbade their use!!

So, the coins sat in Williamsburg, Virginia. On November 16th, 1774 a royal proclamation arrived saying "we do accordingly hereby ordain, declare and command that the said pieces of copper money, so coined stamped and impressed, as aforesaid, shall be current and lawful Money of and in our said colony of Virginia and within the districts and precincts of the same". Yada, yada, yada! Don't you love legalese!

Why did they not just say, "The King declares these coins current lawful Virginian money"? I recall hearing that in medieval times people paid English lawyers by the word. The mixture of French and Anglo-Saxon words made this a winning proposition for the lawyers, who could repeat each at every opportunity. For example, instead of "will" they would say "will and last testament". The habit persists!

But wait! They were not done yet! It took another three months before Nicholas published a notice in the February 27th, 1775 Virginia Gazette, that the King had authorized the coins' circulation. The coins were available for exchange "for gold, silver or any treasury notes". They published the Gazette March 2nd to March 16th, 1775. Nicholas finally released the coins in March 1775, 13 months late! Such are the vicissitudes of bureaucracy!

The first fighting of the Revolutionary War - the Battles of Lexington and Concord started a month later in April 1775. People began hoarding coins, as is common in times of uncertainty.

Continental Congress had met in the fall of 1774. Because of this and the Battles of Lexington and Concord, Lord Dunmore ordered gunpowder removed from the Williamsburg powder magazine to a British schooner on April 21st, 1775, to prevent patriots from seizing the powder. This enraged many Virginia citizens.

On November 7th, 1776 Thomas Jefferson submitted a Bill for "Altering the Rates of Copper Coin of this Commonwealth". This made Virginia halfpence pass as one penny.
But Virginia's House of Delegates rejected the Bill. According to the Colonial Williamsburg Foundation, Jefferson passed them out as presentation pieces. Crosby states in *The Early Coins of America* (pages 338–339) that Thomas Jefferson wrote in 1782, "In Virginia, coppers have never been in use", suggesting that circulation was small.

So, did these coins circulate? Yes, but not much and not for long. Metal detectorists have found over 100 in the ground; 40 in Williamsburg, and the rest from Tennessee in the south to New York in the north. Coppers in colonial times were in demand, and the supply was short, so people accepted nice authorized coins like these.

Significant counterfeiting of English coppers started in 1724. English counterfeits, together with English evasion coppers and cast American counterfeits added to the problem. Most counterfeits were significantly underweight. In 1787 Machin's Mills in America minted English counterfeit halfpence (at 60 to 84 to the pound). They were the largest source of pre-federal coppers.

All these halfpenny size coppers weighed less than regal halfpennies (46 to the pound) and sometimes circulated at a discount according to weight. In Spring 1775, Virginian merchants held onto Virginia halfpence but not onto lower weight counterfeit coppers (fulfilling Gresham's Law that bad money drives out good).

In the 1780s most halfpenny sized coppers, including the Virginia halfpence, passed at 14 to 18 to the Colonial shilling. Most Birmingham (England) counterfeit coppers were also the same weight as Virginia halfpence (60 to the pound).

A copper panic in 1789 made people realize that even in small change, underweight coppers were overvalued. All copper coins dropped to copper bullion value. People melted many coppers even including Virginia halfpence.

The coins
Three types exist:

- Regular copper Virginia 1773 halfpence at 60 to the pound (7.56 grams). The

two main types are with and without a period after GEORGIVS.

- Large planchet 1773 proofs 52 to the pound (8.75 grams), incorrectly called pennies (already discussed). Under 20 specimens exist.
- Silver 1774 "shillings" 5.44 to 5.61 grams. Six specimens exist.

I have already discussed the first two. According to Breen, the silver pieces use an obverse die identical to an English 1774 proof guinea cut by Thomas Pingo. The head is larger, and the legends read GEORGIVS III DEI GRATIA, rather than GEORGIVS III REX on the halfpenny. The reverse is the same as a Virginia halfpenny reverse. Their weight of 5.44 to 5.61 grams averages 91% of the weight of an English shilling. A Virginia shilling would weigh 75%. But Virginia never asked for shillings. So, we should call this a fantasy mule – a silver proof of a 1774 guinea married to a Virginia halfpenny reverse, not a shilling.

1773 George III Guinea EF #1867

To continue with regular Virginian coppers — Newman, in his 1956 monograph, listed 9 obverse dies for the no period after GEORGIVS type, and 8 obverse dies for the period after GEORGIVS type. He listed 2 reverse dies for the 6-string harp reverses, 14 dies for the 7-string harp, and 4 dies for the 8-string harp. He lists a single die with a 9-string harp but no coins exist from this die.

Anthony et al. published the most complete map of the die linkages, listing 24 obverse and 22 reverse dies. Graham Dyer and Peter Gaspar found the British Royal Mint created 40 obverse dies and 30 reverse dies but many went unused. Why they made more obverse than reverse dies is puzzling as reverse dies usually fail first. Perhaps they planned on using the reverse as the fixed anvil die which usually underwent less abuse.

Few have any interest collecting these coins by die varieties. Most collect one coin, or a "with and without period" pair. Unusual die varieties thus command little premium.

Despite numerous obverse and reverse dies, Breen listed only the with and without period types.

Dispersing the hoard

Israel I. Cohen (alias Jacob J. Cohen) emigrated from Prussia's Rhine Province to Virginia in 1773. He fought in the Revolutionary War, and died somewhere between 1801 and 1808. His widow, Judith Cohen (1766–1837) then moved her six surviving children (all sons) from Richmond, Virginia, to Baltimore, Maryland.

The oldest son, Jacob I. Cohen, born 1789, led his brothers in business. Maryland then prohibited Jews from public office. Jacob, got a Bill passed in 1825 in the Maryland General Assembly allowing Jews to serve in public office (including himself). Jacob never married or had children.

Col. Mendes I. Cohen in 1818 from Smithsonian

Jacob's brother Mendes I. Cohen was born in 1796. The story goes that Mendes' father, Israel, left him a hoard of over 5,000 uncirculated Virginia halfpennies. Even at that

young age Mendes showed his colors as an adventurer and as a collector. He enlisted in the army aged 16 and served in the War of 1812, rising to Colonel.

The same year the brothers founded Cohen's Lottery and Exchange Office in Baltimore with branches in other cities. In 1830 the brothers founded the J.I. Cohen and Brothers Banking House in Baltimore, which achieved great prominence. It was one of the few banks to survive the panic (depression) of 1837.

The colorful Col. Cohen retired from banking aged 33 and took a six-year tour of Europe and the Middle East. There he collected relics, coins and art for himself and others. He donated his collection of Egyptian antiquities to The Johns Hopkins University in Baltimore. He also belonged to the Baltimore Numismatic Society.

Q. David Bowers disputes that Mendes received over 5,000 Virginia halfpence from his father. He suggests in the 1870s, Col. Mendes acquired 2,200 uncirculated Virginia halfpence.

As a wealthy retired banker and numismatist, Cohen assembled a formidable American coin collection, which he sold at auction by Edward Cogan in October 1875. But no Virginia halfpennies appeared in the auction.

Mendes Cohen died in 1879. His Virginia halfpenny hoard passed to his nieces and nephews (like his brother Jacob he did not marry or have children). One niece, Bertha Cohen, sold 2,200 of the coins as a single lot at a Baltimore auction in 1929, which in bulk sold for only a few cents each.

Some authorities say Bertha dispersed the hoard between 1875 to 1929. But as a non-numismatist, it is unlikely she dispersed them for a few cents each. The coins found their way to Wayte Raymond (1886–1956) of New York City, a prominent numismatic dealer. Another dealer, Barney Bluestone (1893–1967), of Syracuse, New York, held regular auctions from 1931 to 1950, and also had a cache of the coins.

Breen invented a romance in 1952 that someone found them in an Annapolis, Maryland government office. (Others used the word romance. I do not consider government offices romantic!) Breen invented another romance for his Encyclopedia in 1988, that someone found them in a Richmond, Virginia keg after the Civil War. Breen's wife was a science fiction writer, and Breen himself also wrote fiction. Breen likely could not help himself. He had a penchant for that as well as other things.

An original cask held 6,720 coins. If Cohen's hoard had "over 5,000 coins" this is certainly consistent with finding an original cask, but not proof of it. Nevertheless, he would have to keep 2,200 coins in something, even a cask! Who knows whether there ever was a cask!

Montroville Dickeson in his *American Numismatical Manual*, 1859 describes two hoards: one dug up in Knoxville, Tennessee, and a second near Easton, Pennsylvania. Both clues are now dead ends, unless Col. Cohen bought them both. Dickeson made no mention of Cohen in 1859. No one has mentioned the Knoxville or Easton hoards since.

The Colonial Williamsburg Foundation sold struck copies with CWF below the bust. Breen observes that dangerous counterfeits exist. 65 – 124 coins exist of the die combination pictured. However, thousands of type coins are in collector's hands, mostly uncirculated.

References

Anthony, A., Moore, A.A, Newman, E., Virginia *Halfpence Variety Update with Revised Die Interlock Chart.* Colonial Newsletter. Pages 2797-2806April 2005.

Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American Coins*. 2009. Whitman Publishing, Atlanta, GA.

Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins.* 1988 Doubleday, NY.

Crosby, S., *The Early Coins of America*. 1875 Published by the author. Boston

Dickeson, M.W., *The American Numismatical Manual.* Lippincott & Co., Philadelphia, 1865.

Dyer, G.P. Gaspar, P.P., A Virginia Numismatic Discovery. ANS Society Museum Notes No. 27, 1982, pp. 231-237

Newman, E.P., *Coinage for Colonial Virginia* Numismatic Notes and Monographs No. 135. American Numismatic Society, New York, 1956.

Veach, W.N., The Generation Newsletter, Vol 1, Issue 3, Nov 1990.

Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*. 72nd Edition. Whitman Publishing LLC Pelham, AL 35124

https://www.history.org/history/teaching/enewsletter/volume2/images/tobaccoeconomy.pdf

By Joshua Reynolds - lgECWFRNNa2txg at Google Cultural Institute maximum zoom level, Public Domain, https://commons.wikimedia.org/w/index.php?curid=21865923

https://www.npg.org.uk/collections/search/portraitZoom/mw38160/Thomas-Pingo-Sr?LinkID=mp131522&role=sit&rNo=0

https://s3.amazonaws.com/assets.saam.media/files/files/images/1978/SAAM-1978.67.1_2.jpg

Bowers, Q.D., *American Coin Treasures and Hoards and Caches of Other American Numismatic Items.* Wolfeboro, N.H. Bowers and Merena, 1997, pp. 30-31.

271

VIRGINIA HALFPENNY 1773, PERIOD AFTER GEORGIVS. NEWMAN 21-N; 25MM, 7.17 GRAMS UNC

CHAPTER EIGHT
ROYAL AUTHORIZED FRENCH COINAGE
OFFICIALLY MADE ONLY FOR THE COLONIES

Coins authorized by the French Crown for circulation in colonial America fall into three categories (Breen's classification):

- **Officially Made Only for the Colonies (OMOC)**
- **Official Domestic Export for colonies (ODEC)**
- **Unofficial Domestic Export for colonies (UDEC)**

I will deal with the first two in the next five chapters. I will deal with UDEC under common foreign trade coins. Curiously, Bowers lists French colonial coins in his book under "Unrelated Foreign Coins and Tokens".

OMOC – 1670 Gloriam Regni issues,
– Louisiana crossed L coppers of 1721–2 (this chapter)
– French W Indies issues 1765 stampees, 1767 sou, 1780–9 Cayenne (Chapter 9)
ODEC – Billon, douzaines1640-1705 (Chapter 10)
Mousquetaires & Sou marqué 1709–60
– John Law 1720, 3,6,12 d copper, & 20 sol silver (Chapter 11)
– Le Chameau Ecu and Louis d'or 1723–5 (Chapter 12)

Five OMOC Issues

1. 1670 Gloriam Regni Issues

France versus England

Although Jacques Cartier claimed the St. Lawrence region for France in 1534, the French had too few people there to generate significant commerce. All that changed when Samuel de Champlain colonized Quebec in 1608. The British set up Newfoundland villages from 1610 to 1621 and trading posts on Hudson's Bay in 1670. France seized them during King William's War in 1697. But at the end of Queen Anne's War in 1713 France had to return Acadia and Hudson's Bay to England.

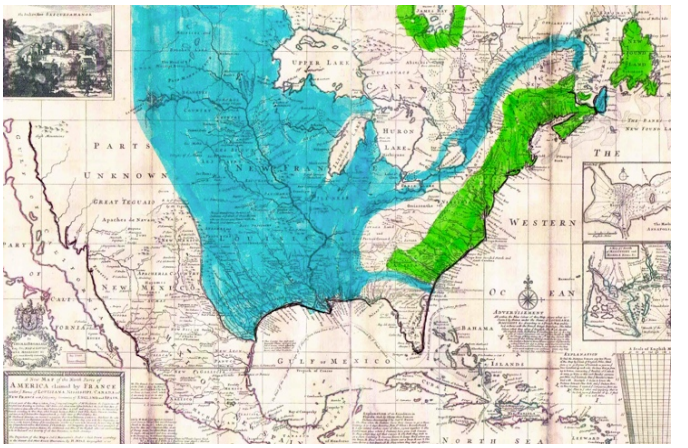
Four French and Indian Wars between France and Britain constantly changed who owned what until 1763. Then at the Treaty of Paris, England took over most of France's North American possessions. Before that about one third of modern-day America was French Louisiana, one third British, and one third Mexican.

France had three North American possessions:

- **Nouvelle France** which included Acadia (Nova Scotia, New Brunswick, Prince Edward Island, lower Quebec province and Maine north of the Kennebec River), and the St. Lawrence River, especially between Quebec City and Montreal.
- **La Louisianne.** Initially, this was land drained by the Mississippi and Mobile Rivers. In 1717 La Louisianne incorporated Illinois Country adjacent to the Great Lakes.
- **Les Indes Occidentales,** also called the French West Indies or French Antilles. These included Guadeloupe, Martinique, Saint Martin, Saint Barthélemy, Haiti and loosely French Guiana (also called Cayenne, and located nearby in South America).

With our modern focus on the United States and Canada, we often forget that in the 1600s and 1700s Europeans prized Caribbean Islands over mainland North America because of the immense value of their sugar cane exports.

Map showing French West Indies Islands.


North America 1720, France in blue, Britain in green.

French King Louis XIV in 1673 (after Claude Lefebvre)

Enter Louis XIV

King Louis XIV (1638–1715) famously said "L'Etat, c'est moi" (The state, that's me!) Talk about narcissism! He reigned for 72 years from 1643 to 1715. He built Versailles, where his 3,000 courtiers lived in 700 rooms. The cost? Estimates range from $4 billion to $300 billion today. It nearly bankrupted the country by the time he occupied Versailles in 1682. Estimates for maintenance alone in the 1600s represented 6 to 25% of French GDP!

Some say Louis XIV chose the agnomen sun king, others say his subjects chose it. A larger-than-life character like Sir Winston Churchill or Lawrence of Arabia, he fomented repeated wars to achieve hegemony over Europe. He also forced his aristocracy to live at Versailles, thus enhancing his power.

Although married and allegedly pious, Louis XIV womanized copiously, fathering many illegitimate children. He also had a "thing" about watching childbirth. He insisted on seeing his children being born, insisting his wives or lovers remain on their backs (supine), so he could see every detail. As the all-powerful king, he could do as he wished. But this was a first.

Previously, women gave birth more comfortably by squatting. Modern studies show squatting labor is faster with less discomfort and complications than supine labor. Supine labor became customary after Louis XIV and continued in western society ever since. One advantage today: modern obstetricians can examine patients and intervene more easily.

Louis XIV came to the throne aged five in 1643. The Italian Cardinal Jules Mazarin, as Controller of France ruled as regent until 1661. When Mazarin died, Louis, aged 23, assumed personal control. He appointed Jean-Baptiste Colbert (1619–1683) as his Controller General for trade from 1661 to 1683.

Despite living to the ripe old age of 76, Louis XIV had painful conditions: diabetes with recurrent abscesses, and gout. At one point he suffered in bed for two months after an operation for a painful anal fistula. He died of a gangrenous leg from diabetes, often very painful.

To return to finance, part of Louis XIV's plan, as pushed by his Finance Minister Colbert, was to expand France's colonial holdings. Colbert felt money in the colonies would facilitate trade, and in 1661 planned a stock company. Within three years Colbert formed the Compagnie des Indes Occidentales (French West India Company). This had 40-year monopolies for business in North and South America, and even included parts of Africa.

Jean Talon, the Intendant of New France at the time (1665–1672), tried to change the economy from fur trapping to agriculture. To do this, he needed more population, so he arranged for 800 young French women to emigrate to new France to marry male settlers. Called the "King's daughters", they emigrated between 1663 and 1673, under a program Louis XIV sponsored. The state paid them on marriage, and again on bearing children. Louis also sent Catholic missionaries. Two-thirds of present Quebecois can trace their ancestry back to them!

Because of a chronic shortage of money in North America the French West India Company in 1663 suggested coining 100,000 livres to circulate in Canada. They proposed brass tokens with a different design than regular French issues. Further they proposed they be exchangeable for silver or gold at the Intendant's Office. The proposal failed.

There were two "governors" of New France, one called the Intendant or civic governor; the other called the Governor General, or military and foreign policy governor.

In 1665, the Director General of the French West India Company again proposed small change to pay day laborers and artisans hitherto paid only in sugar and tobacco. He suggested debased "silver, alloy and copper" to keep the coins from leaving the West Indies.

Five years later, Colbert convinced Louis XIV to sign an edict on February 19th, 1671/1670, to mint coins for French North America. The king authorized minting 100,000 livres of silver and copper coins without seignorage (profit from the difference between the coins' value and cost of production). This comprised:

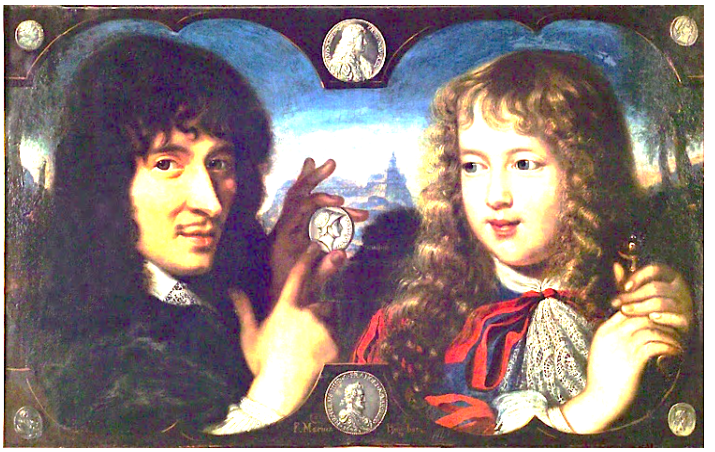
- 30,000 livres of 15-sol silver pieces
- 50,000 livres of 5-sol silver pieces
- 20,000 livres of 2 denier copper pieces

These coins were the same weight, denomination, and value as French pieces. Some have tried to portray these as the first coins of Canada. But according to the Charlton Catalogue (see references), "period documents suggest that they probably were intended for the West Indies rather than New France… to pay day laborers and artisans". Again, Europeans felt the Caribbean, not mainland America, was their Empire's crown jewel.

Louis XIII had stopped minting the franc in 1641, replacing it with the silver ecu and the gold Louis d'or. In 1670 the ecu was worth three livres (60 sols). The ecu varied between three and six livres until 1726 when they fixed it at six livres. Where did the word "ecu" come from? "Escu" in Old French derived from the Latin Scutum meaning shield (like the Spanish word Escudo).

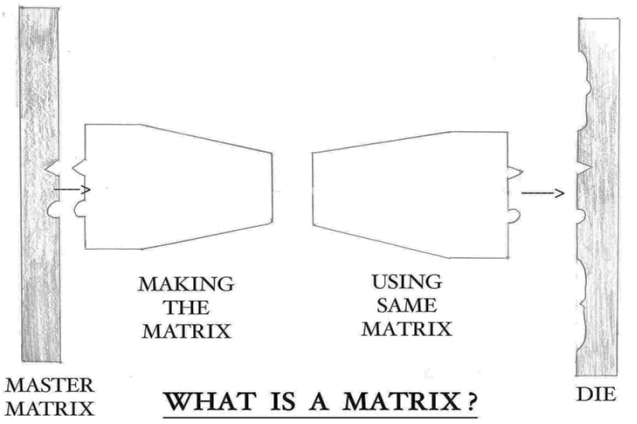
French coin denominations were:
1 Ecu = 3 to 6 livres
1 livre = 20 sol (in Britain 1 pound = 20 shillings)
1 sol = 12 deniers (British 1 shilling = 12 pence)

Jean Varin and the mint



Jean Varin teaching the young Louis XIV history with coins

By May 27th, 1670 Jean Varin (also spelled Warin) presented the dies and matrices for the 1670 coins he had prepared at Louis XIV's court. On June 29th they gave the dies to the Paris Mint for striking. Louis XIV knew Varin well. He had taught Louis as a child.



WHAT IS A MATRIX?

So, what is a matrix? A matrix (also called patrix) is like a die punch containing more than one letter or a device e.g. a legend or a head. The purpose is to punch large areas into the die to speed die production. They softened the die steel before punching, then tempered it to harden it afterwards. Engravers could touch up punches as well as dies. This created different varieties depending on how deep or shallow they punched the punch, whether the matrix spread after use or was double punched, and their position in relation to other devices in the die.

Jean Varin (1604–1672) was a talented French sculptor and engraver. Born in Liege, he moved to Paris aged 22, and married three years later. Cardinal Richelieu patronized him and made him Conducteur Général des Monnaies et Graveur des poinçons (Conductor General of the Mints and Punch Engraver).

In 1636 Varin persuaded the king to give him a quarter share of the Paris Moulin Mint and became Mint Master there. In 1647 Varin became Controleur et Graveur Général des Monnaies de France (Controller and Engraver General of all French Mints). Three years later he became a naturalized French citizen.

In 1660 the king appointed him Adviser and Secretary to the King and Intendant and Organizer of the Royal Buildings. Varin was the first to make screw press minting routine throughout France, replacing the old hammer minting process. Varin died ten years before the expanded Versailles opened.

The Coins

	15 sols	5 sols	2 deniers
Livres	30,000	50,000	20,000
Sols	600,000	1,000,000	400,000
Coins	40,000	200,000	2.4 million
Minted	41,564	202,453	1
Mint	Paris	Paris	(Paris)
Fineness	11/12ths = 91.67%		Copper
Qty to Marc*	35	105	Copper
Auth. Wt.	6.99 grams	2.33 grams	-
Actual Wt.	6.75 grams	2.24 grams	-

Proposed Gloriam Regni coin details

*1 Marc = approximately 230 grams. 1 Troy pound = 489.5 grams. In Charlemagne's time a Troy pound of silver (373 grams) supposedly made 240 deniers each of 2.04 grams, though even his deniers only weighed about 1.6 grams. Denier and penny silver content gradually fell more in France than in England. See metrology on page 564.

Only one double denier exists. It has an A mint mark for Paris. Royal authorization called for striking at Nantes Mint (T mint mark). In 1700 Nantes' Mint records were destroyed, so we may never know what happened to those 2.4 million Nantes coins, if they ever existed.

One theory is that they made an incorrect die with an A mint mark, so they decided not to strike the coin. But they would never have minted 2.4 million coins from a single set of dies anyway, so that does not seem like much of an argument. I feel there were other reasons. Perhaps they felt the work and cost of producing 2.4 million coins too much, so abandoned the idea, and produced a single sample for posterity. Perhaps they decided the denomination was too low.

The 5 and 15 sol coin obverses (5 sol opposite) showed a laureate draped bust of Louis XIV aged 30 with a sun above representing the Paris Mint Master, Pierre Cheval rather than sun king. The legend reads: LVD XIIII DG FR ET NAV REX (Louis XIV by the Grace of God, King of France and Navarre).

The reverse shows a crowned shield of three fleurs de lys. The legend reads: GLORIAM REGNI (A mintmark for Paris) TVI DICENT 1670 then a castle for the Paris Mint Chief Engraver, Jean-Baptiste DuFour. This translates to "they will speak of the glory of thy Kingdom". It is an excerpt from Psalms, 145:11, a reference not to Louis XIV, but to God! As Walter Breen comments, "a singular piece of arrogance on the part of this most egotistical of all French Kings!"

The French had a secret system of points (periods) under letters in the legends to indicate the mints, introduced under King Charles IV in 1389. Counting the number of letters from the first letter of the legend to the letter with a dot under it gave the number of the mint (each mint had its own number). In 1540 King Francis I's regime changed this secret point system to a letter for each mint beginning with the letter A for Paris. Mint Masters also had to place their personal marks on coins (called différents). You will note a dot under the last I of XIIII on the Gloriam Regni 5 sol and 15 sol pieces. Here it was the 8th letter, called "Point 8e". Around 1670 this showed **when** they made the coin — the second semester of 1670 (Martin page 28).

The 2 denier unique copper piece and the 15 sol pieces are six figure coins, thus only the 5 sol coin is realistically collectible. Sidney Martin in *French Coinage Specifically for Colonial America*, lists two obverses and two reverses for the 15 sols, and lists 17+ known examples. He lists 15 obverse and 13 reverse dies for the 5 sols, and lists 50 known examples, including five examples of this 8-C variety.

The coins resembled French coins except for the Gloriam Regni legend (see below). French domestic coins had SIT NOMEN DOMINI BENEDICTVM (the Catholic Episcopal blessing – "blessed be the name of the Lord"). The most expensive die (the more complex or artistic) they usually placed as a fixed or anvil die, called the obverse. The movable die they placed as the upper or hammer die, or reverse, which wore out more quickly. However, for the Gloriam Regni issue the reverse was the anvil, and the obverse was the hammer die. They used an anti-rotation device for the dies – the coins are all a perfect coin turn.

Top: 1660 Louis XIV 5 sols regular issue #2915
Bottom: 1670 Louis XIV 5 sols Gloriam Regni piece

What happened to the coins?
Very few 5 sol and 15 sol pieces entered circulation in New France because France forbade merchants to redeem them for merchandise in France! Why didn't they think of that! The answer: mainly mercantilist thinking.

All Europeans with colonies abroad espoused mercantilism. This philosophy said the mother country must use their colonies to supply raw materials. They would pay for these with manufactured goods, thus keeping as much specie and profit as possible in the mother country. The more silver and gold specie that accumulated in the mother country, the richer the country was.

Money was scarce in America. Most early colonists used pieces of eight and their fractions, (cobs until 1732) which were high denomination coins, for monetary exchange. Lack of small change was a chronic problem dealt with by barter, country pay and money of account. The inability of mother countries to rectify these problems reflected their mercantilist philosophy.

In 1654 (according to Robert Vlack) or 1662 (according to Walter Breen) Quebec valued all French coins in the colony (mostly billon) at one third higher than their stated denomination ("crying up"). They thought this would stop the coins leaving the country.

Jean-Baptiste Colbert, Louis XIV's Finance Minister

Jean Talon Intendant in Nouvelle France 1665 – 1672.

In 1672 Louis XIV exchanged letters with his Controleur Général Colbert (Secretary of the Treasury), and New France's Intendant, Jean Talon (1670–1672), to increase the value of the 1670 Gloriam Regni issue again by one third. They thought this would stop merchants melting them to exchange for goods or for pieces of eight to pay for their merchandise! Wrong! New France's economy soon returned to the same old barter and pieces of eight for imports. Merchants melted most Gloriam Regni pieces.

References

Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American Coins*. 2009. Whitman Publishing, Atlanta, GA.
Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins.* 1988 Doubleday, NY.
Crosby, S., *The Early Coins of America*. 1875 Published by the author. Boston
Cross, W.K., Editor. *The Charlton Standard Catalogue of Canadian Coins*. Charlton Press, Toronto, Ontario. 1999.
Hodder, M.J., *An American Collector's guide to the Coins of Nouvelle France*, pp. 2 – 35. Coinage of the Americas Conference #8, ANS New York. 1994
Martin, S.F., *French Coinage Specifically for Colonial America*. The Colonial Coin Collectors Club www.colonialcoins.org 2015
Vlack, R.A., *An Illustrated Catalogue of the French Billon Coinage in the Americas*. Colonial Coin collectors club www.colonialcoins.org. 2004
Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*. 72nd Edition. Whitman Publishing LLC Pelham, AL 35124
https://cdn.loc.gov/service/gmd/gmd4/g4390/g4390/ct002115.jp2
https://www.loc.gov/item/2001624907/
By After Claude Lefèbvre - Les collections du château de Versailles, Public Domain, https://commons.wikimedia.org/w/index.php?curid=758708
By Pierre Mignard - http://www.histoire-image.org/site/oeuvre/analyse.php?i=1272, Public Domain, https://commons.wikimedia.org/w/index.php?curid=1252542
By Philippe de Champaigne - Info Pic Metropolitan Museum of Art, Public Domain, https://commons.wikimedia.org/w/index.php?curid=1353933
By Claude François - André Vachon, Victorin Chabot et André Desrosiers, Rêves d'empire. Le Canada avant 1700, coll. « Les documents de notre histoire », Ministère des Approvisionnements et Services Canada, 1982. ISBN 0-660-90785-2 (relié) ISBN 0-660-90482-5 Invalid ISBN (broché), Public Domain, https://commons.wikimedia.org/w/index.php?curid=18427100

2550

Gloriam Regni Silver 5 Sols 1670A (Paris). Martin 8-C; 21mm, 2.23 Grams F+ Adjustment Marks

Six and Twelve deniers of 1717 (Perpignan Coppers)

When Louis XIV died in 1715 his great-grandson, Louis XV, succeeded him. Why? Louis XIV's oldest son, the Grand Dauphin (1661–1711) died of smallpox in 1711. The Dauphin's son and next in line, another Louis, Duke of Burgundy (1682–1712) died from measles the next year. He had three children, including Louis, Duke of Brittany (1705–1712) and Louis XV. They both got measles. The Duke of Brittany died, but Louis XV survived. It all looks much simpler like this:

Louis XIV King of France = Maria Teresa
1638 – 1715 † diabetic gangrene 1638 – 1683
|
Louis, the Grand Dauphin = Duchess Maria
1661 – 1711 †smallpox of Bavaria
|
Louis, Duke of Burgundy = Marie Adelaide
1682 – 1712 † measles of Saxony
|
Louis, Duke of Brittany 1707 – 1712 † measles
Louis XV King of France 1710 – 1774

King Louis XV of France 1712 - 1774

Philippe II Duke of Orléans, regent for the King.

Like his great-grandfather, Louis XIV, Louis XV inherited the throne aged five. The Duke of Orléans acted as regent for him until he came of age (then defined as 13 years old).

In 1717 the Duke of Orléans signed an edict to make three million six deniers (half sol) coins and 1.5 million 12 denier (sol) coins at the Perpignan Mint (Q mintmark). The obverse showed Louis XV as a child. The reverse read: VI (or XII) DENIERS COLONIES 1717 Q.

Breen states only 4 to 12 sols and 3 to 4 half-sols exist. The available copper proved unusable, so they aborted production. With this rarity and with production cut short, the coins did not circulate in the colonies and are not therefore collectible circulating colonial coins.

2. Louisiana Crossed L Coppers (Also called Coinage of 1721–1722 or The Nine Deniers of 1721–1722)

After the aborted Perpignan coppers, the chronic shortage of small change in the French Colonies in America lingered. A failed Scottish gambler, John Law, gained the Duke of Orléans' confidence, and eventually the control of the French Royal Bank and the French West India Company. More about this later! John Law coins are another category.

In June 1721 the Duke of Orléans signed another edict for 150,000 marcs of copper coins (Louis

XV was still only 11). The edict acknowledged that bad quality copper had previously curtailed production of Perpignan coppers. This 1721 edict replaced the defective and aborted Perpignan copper production. The edict specified:

- Bordeaux Mint 30,000 marcs
- La Rochelle Mint 50,000 marcs
- Nantes Mint 40,000 marcs
- Rouen Mint 30,000 marcs

1 marc = approx. 230 grams

The edict specified:

- 18 deniers – 20 to the marc
- 9 deniers – 40 to the marc
- 4 ½ deniers – 80 to the marc

They intended the coppers for New France but they ended up in Louisiana – more about that later! The nine deniers coins weighed the same as the Perpignan six deniers coins, at 40 to the marc i.e. they inflated Louisiana copper values by 50%. They measured copper in avoirdupois weight (gold and silver used Troy weight). An avoirdupois marc weighed approximately 230 grams. At 40 to the marc, a copper should weigh 5.67 grams (Breen quotes 6.12 grams).

But they never properly executed the edict. They only minted La Rochelle (H mintmark) and Rouen (B mintmark) nine denier coins. We do not know why the other two mints did not participate, or why they made no 4 ½ or 18 denier coins.

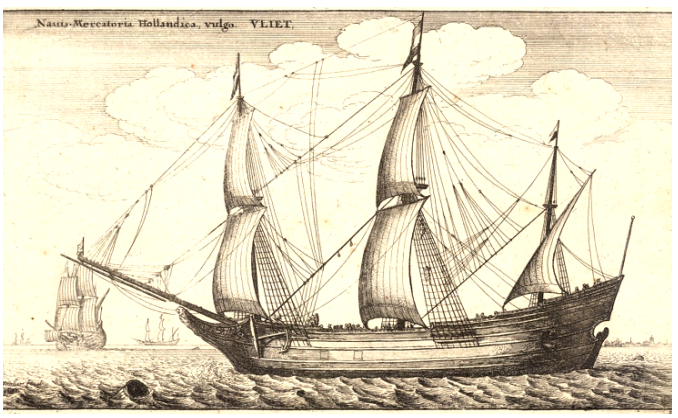
Joseph-Charles Roettiers engraver.

Joseph-Charles Roettiers (1691–1779) made the punches and matrices for all the dies. Born in Paris to Joseph Roettiers, he came from an illustrious family of engravers, medalists, silversmiths and goldsmiths. The king appointed him Royal Medal Engraver and Engraver General at the Paris Mint in 1727. His cousin, Norbert, worked at the British Royal Mint with his father, Chief Engraver there from 1684. However, Norbert, a Jacobite and Catholic sympathizer, left England in 1695 to join Joseph-Charles and attach himself to the Stuart court in France. Norbert also became Engraver-General to the French Mint.

France imported the copper from the Swedish "Copper Mountain" at Falun — this time good copper. The mine supplied two thirds of European copper needs for centuries, including copper coins from 1347 on. The mine, 150 miles northwest of Stockholm, operated for 1,000 years from the 900s until 1992, and is now a World Heritage Site.

Until 1681 France forbade its American colonies to use "piasters espagnole" (cob pieces of eight). Then in 1681 the Quebec Superior Council authorized pieces of eight to circulate at 3 livres, 19 sols and 1 denier i.e. 949 deniers or 158 six deniers pieces. By contrast a piece of eight was worth 106 halfpence. Thus, halfpence were worth 46% more than 6 deniers (9 deniers). These new 9 denier pieces had only 6 deniers of copper!

Circulation of the coins



Dutch Flute, similar to Le Chameau

In June 1722, they shipped 20,000 livres of silver coins, and ten casks of nine denier coins to Quebec on *Le Chameau* (see above). The casks contained 3¼ metric tons or 13,300 marcs of copper, also with a face value of 20,000 livres. Breen says 99% of the nine deniers were La Rochelle, and one percent Rouen.

The La Rochelle coins accounted for just over a quarter of the edict's quota of 50,000 marcs. La Rochelle and Rouen never produced the remainder of the edict's quotas. Perhaps the Duc of Orléans was waiting to find out colonists' reactions to the coins before they made more.

Le Chameau measured 135' long and 31'wide, weighed 600 tons and carried 44 canons. She carried cargo, passengers and money back and forth from France to Quebec. But once she arrived in Quebec in 1722, colonists realized the coins had only six denier's worth of copper!

Other fears surfaced about the 9 deniers coppers:

- the king could devalue them later
- people might use them for large capital purchases instead of silver
- they would not pass outside the colonies
- merchants could not buy merchandise abroad with them
- the British could easily counterfeit them, and exchange them for New France silver coins, thus draining silver from the colony.

Even after the Quebec Superior Council authorized the coins (something the French court had forgotten about), colonists still refused to accept them.

Gov. Gen. Vaudreuil **Count Maurepas**

In October 1723, Governor General Philippe de Rigaud Vaudreuil (above) and Intendant Michel Bégon de la Picardiere wrote a joint letter saying:

- it is not the practice in this country to use copper coin (by this he meant that colonists preferred billon which keeps at least some silvery appearance even after several years in circulation)
- copper is inconvenient, it is too heavy
- the coin denomination is way over intrinsic value
- coins are not current outside the colony

Sure enough, seven months later a royal edict devalued the coins to six deniers! But that still did not make them circulate; beaver trappers refused them as pay for the all-important pelts.

Another letter followed in November 1724 from the New France Governor General and Intendant, to Count de Maurepas. Maurepas was the "Maison du Roi" or King's House Secretary of State (see opposite). New France said the smallest circulating coin was a sol. The purchasing power of copper had declined: the half-sol (6 deniers) would not buy anything. The half-sol filled no role; they suggested returning the coins to France.

Finally, in September 1726, 525,820 of the coins returned on the ship *Elephant*, to Rochefort, France. In four years, only 1.5% of the coppers had entered circulation in Quebec.

The Count de Maurepas then told the French West India Company to take charge of the coins. The company reshipped the coins (520,000 coins now revalued at six deniers i.e. 13,000 livres) to Louisianne in America on the ship *Dromadaire* arriving in 1727.

Louisianne snapped up the coins like candy. They used them to buy goods from Europe. As the coins were now French West India Company property rather than the Crown's, they could now spend them abroad. As a result, many of the coins left the country. In America in the 1800s they called these coins "Louisiana coppers". I prefer Louisiana crossed L coppers to the rather dry sounding "coinage of 1721–1722".

In 1731 the French West India Company resigned its Louisianne charter. Louisianne became a crown colony. The coins had been very successful; so much so that in January 1732 Louisianne Governor Etienne Périer asked for 6,000 livres of coppers a year for another three years.

Sidney Martin notes 36 ground finds in North America, especially from Alabama, Illinois, Nova Scotia, Mississippi, and Florida. He also points out that most surviving specimens are well worn, suggesting that these coins circulated.

The coin (see opposite below)
The obverse shows crowned crossed L's. The legend reads: SIT NOMEN DOMINI BENEDICTUM (the Catholic Episcopal blessing "blessed be the name of the Lord").

Différents are marks of engravers and mint masters required by law on French coins. At 12 o'clock notice an ermine (some say an arrow or root) différent for the engraver Jean Lisard; and a trefoil (some say an acorn) différent for the La Rochelle mint master Jean Donat.

The reverse shows four lines of characters. COLONIES | FRANÇOIS | date | mintmark. The Rouen coins (very rare) have a hunting horn to the left of the date (différent for mint master Pierre Duval) and a spade or pike, to the right of the date (différent for the engraver Pierre de Roscherville). This coin is shown on page 94.

Which side is which? On the one hand, eminent numismatists Walter Breen, Don Taxay, Michael Hodder, Q. David Bowers and Sidney Martin all picture the crowned crossed L's as the obverse (see opposite). On the other hand, the French Bibliotheque National, the Red Book, Robert Vlack, and the king's edict all picture the date side as the obverse.

Martin identifies 91 varieties in 8 different groups. The average weight is 5.76 grams, with a wide variation. This is more in keeping with the edict's 40 to the avoirdupois marc at 5.67 grams than Breen's 6.12 grams. Their diameter range is 24.5–26.5mm.

Rouen coins (B mintmark) are exceedingly rare. They only minted them in 1721 (Charlton lists 1722 specimens but they do not exist). In 1722, La Rochelle initially had no 1722 dies so used punches to create 1722/1 dies until they received the 1722 dies. It is very difficult to see these 1722/1 coins as an over date even if uncirculated.

As a group, over 1,000 of these coins exist today. Four main varieties exist: The first and second lines show the Martin reverse and obverse groups. The third line shows the number of specimens known today:

1721-B	**1721-H**	**1722/1-H**	**1722 H**
Rev A	Rev B	Rev C	Rev D
Obv 1	Obv 2,3or4	Obv 2or3	Obv 3
76(-200) known	150-400 known	200-500 known	200-500 known

Martin says 76-200 1721B specimens exist, but knew of only 48 specimens. Heritage auctions list only three ever sold. Thus, rarity could be under 75 not 76 to 200.

Martin's four obverse types are:

Obv 1 no différents. Dots between words only.
Obv 2 ermine & trefoil différents no dots, dots between words
Obv 3 ermine & trefoil différents with dots, dots between words
Obv 4 ermine & trefoil différents with dots, no dots between words

9 Denier 1722/1 H Martin 2.7-C.2; 25.5mm, 5.09 Grams

References
Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American Coins*. 2009. Whitman Publishing, Atlanta, GA.
Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins.* 1988 Doubleday, NY.
Crosby, S., *The Early Coins of America*. 1875 Published by the author. Boston
Cross, W.K., Editor. *The Charlton Standard Catalogue of Canadian Coins*. Charlton Press, Toronto, Ontario. 1999.
Hodder, M.J., *An American Collector's guide to the Coins of Nouvelle France*, pp. 2 – 35. Coinage of the Americas Conference #8, ANS New York. 1994
Martin, S.F., *French Coinage Specifically for Colonial America*. The Colonial Coin Collectors Club www.colonialcoins.org 2015
Vlack, R.A., *An Illustrated Catalogue of the French Billon Coinage in the Americas*. Colonial Coin collectors club www.colonialcoins.org. 2004
Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*. 72nd Edition. Whitman Publishing LLC Pelham, AL 35124
By Anne Vallayer-Coster - Château de Versailles, Public Domain, https://commons.wikimedia.org/w/index.php?curid=25593788
By Jean-Baptiste Santerre - http://farm5.staticflickr.com/4091/5062348084_73cb02b687_o.jpg, Public Domain, https://commons.wikimedia.org/w/index.php?curid=18347230
By Wenceslaus Hollar - Artwork from University of Toronto Wenceslaus Hollar Digital Collection Scanned by University of Toronto High-resolution version extracted using custom tool by User:Dcoetzee, Public Domain, https://commons.wikimedia.org/w/index.php?curid=6233667
https://en.wikipedia.org/wiki/Philippe_de_Rigaud,_Marquis_de_Vaudreuil#/media/File:GG-Vaudreuil.jpg
https://commons.wikimedia.org/wiki/File:Comte_de_Maurepas_portrait_sans_date.jpeg

701

9 Deniers 1721 H (La Rochelle). Martin 3.5/B.18; 26mm, 6.62 Grams VF

424

9 Deniers 1722/1 H (La Rochelle). Martin 2.7/C.2; 25.5mm, 5.09 Grams EF

2925

French Colonies 9 Deniers 1721-B (Rouen). Martin I.1-A.7; PCGS VF 20. Ex Schulman, Ford, Craige

CHAPTER NINE
ROYAL AUTHORIZED FRENCH COINAGE
OFFICIALLY MADE ONLY FOR THE COLONIES (CONTINUED)

There are five Officially Made Only for the Colonies (OMOC) issues. The last chapter listed:

1. **Gloriam Regni issues**
2. **Louisiana Crossed L coppers.**

This chapter will deal with:

3 **1765 stampees**
4 **1767 sou**
5 **1780–1789 Cayenne 2 sous**

3. Stampees (1765 on) authorized for French West Indies

This is a confusing area. Breen said "black dogs" and "stampees" are the same thing. Vlack differs and is correct.

A Royal Edict of September 1709 ordered billon 30 deniers "Mousquetaires" struck in Lyons and Metz. It authorized Lyons 1709–1713 (D mintmark) 30 deniers for official domestic export to the colonies (ODEC), not OMOC.

In 1738 another French Royal Edict ordered billon double douzains (24 deniers) incorrectly called sous marqués. These billon coins (also ODEC not OMOC) continued until 1760. Mints continued producing them for home use after 1760. They only exported 1757 and later sous marqués to Louisianne, not to New France. I will cover sous marqués and mousquetaires (ODEC not OMOC) later, in chapter ten.

After three French and Indian Wars between the French and British, the final war, called "**The** French and Indian War" (1754–1763), ended with the Treaty of Paris which ceded New France (Canada) to Britain. France ceded Louisianne to Spain in 1762 (and reacquired it in 1802). But the French West Indies remained French.

In 1763 a Royal Edict recalled all billon sous (ODEC) for counterstamping at the Paris Mint. The new British administration valued all circulating French billon at one farthing. Either they were unaware the coins contained silver, or intentionally wanted to drive the coins out of the colony. But they had no interest in minting new coins for Canada (where Birmingham counterfeit coppers took the place of French billon coins). Because of this devaluation many billon coins ended up in Louisianne and the French West Indies, where they kept their original value. In 1762 Quebec returned all treasury coins (mostly billon) to France.

Authorities have been debasing silver coins with copper since Roman times. The word "billon" means less than 50% silver in a coin. French and other colonists accepted silver coins more readily than copper, so billon was a cheap answer. Before minting the coin, they washed the planchets with dilute acid, which dissolved surface copper, exposing the silver. Although they may look silvery when struck, billon below 25% deteriorates in circulation to a nasty black color, hence "black doggs" ("noirs" in France).

Breen says mousquetaires (1709–1760) contained 20% silver and the sous marqués (1738–1760) 25% silver. Vlack says before 1641, billon contained 24% silver, then until 1715, 19.95% silver. Pridmore (see references) states that black doggs current in the West Indies (where humidity would have sped up the blackening of billon) were:

- 15 deniers (half-mousquetaires) 1692–1705
- 30 deniers (mousquetaires) 1709–1713
- 24 deniers (2 sols or sous marqués) 1738–64

Six million "noirs" or "black dogs" (ODEC) reached the Paris Mint in 1763. The mint counterstamped them with a crowned C counterstamp and in 1765, shipped 6 million of them to the Indies as now OMOC. Curiously, the Red Book omits these coins officially made only for the colonies:

Vlack 371 crowned C contoured (creating a cartouche) counterstamp on old sou marqué

The counterstamping operation continued in Paris and later in La Rochelle. France forbade using these counterstamped billon coins in France. So, they qualify as colonial French coins officially made only for the colonies (OMOC).

When these arrived in La Louisianne and the Indies in 1765, they called them sols estampés. The Creoles corrupted this to sols tampés; the English anglicized the word to "stampees". These may have originally been black doggs, but after stamping they became stampees. Remaining black doggs circulated in the British West Indies at 1½ pence because they contained silver. The counterstamps created token coinage valued 50% higher at 2¼ pence.

The earlier cartouche-effect counterstamps, shown on the last page, damaged the coin, so early on Paris switched to striking over the coin without indenting it (Vlack 374) not damaging it:

Vlack 374 struck over old sou marqué not contoured

In 1779–1780 the Paris mint had used up supplies of "noirs", so struck crowned C's on 22.5mm blank billon or copper planchets (like the Vlack 374 but on a blank planchet). Again, they did not counterstamp it (like the Vlack 371, which indents the coin creating a cartouche):

Vlack 375 Crowned C struck on blank planchet

The British West Indies were also short of small change so used these stampees. Indeed, they were so popular that Birmingham counterfeiters even produced fake sous marqués with the crowned C all in the same die to circulate in the British West Indies:

Vlack 376 Birmingham counterfeit of 1749 sou marqué with crowned C all integral to dies

Finally, the mint used a die which covered the whole planchet to create a crowned C stampee. The base of the crown was oval whereas on the previous Vlack 375 it was straight. This crown measures 9.5 mm across, whereas the Vlack 375 stamped crown measured 8 mm across :

Vlack 379 die struck Crowned C on plain planchet.

When the French made Cayenne 2 sous pieces from 1780 to 1789, only for the colonies, some also ended up with crowned C counterstamps.

Another confusing issue was the use of the word sou as a substitute for sol. One sol was 12 deniers. The word sou derived from the Old French "sol". But they also used the word "sou" like the English used the word "copper" for any low denomination coin. Hence, they should have called the sou marqué of 24 deniers, a double sol marqué (or even double sou marqué). They should have called the half sou marqué a sol marqué (or sou marqué). People also called the 1721–1722 nine denier coins "sous" even though they were not worth 12 deniers (i.e. one sol or "sou").

The word marqué derives from the Royal Edict of 1640 in which the king demanded that douzaines (12 deniers = one sou or sol) be counterstamped with a fleur-de-lis mark, to raise their value to 15 deniers, so he could pocket the difference. Such coins were then called sous marqués.

Vlack's classification of Stampees

*** = examples shown**

***Vlack 371** Contoured and cartouched crowned 5mm C over an old billon coin (4–12 known)

Vlack 372 Contoured and cartouched crowned 5mmC over new blank planchet(4-12 known)

Vlack 373 Crowned 3mm C on a blank Planchet (2–3 known).

***Vlack 374** Struck crowned 5mm C over an old billon coin (13– 30 known).

***Vlack 375** Crowned 5mm C struck on a blank billon or copper planchet (501–1,250 known) Made when Paris ran out of old billon coins. They had a straight bottom to the crown.

***Vlack 376** Birmingham 1749 counterfeit (201 –500 known).

Vlack 377 Birmingham 1769 counterfeit (2–3 known).

Vlack 378 Birmingham reverse, crowned C alone on obverse die (4–12 known).

***Vlack 379** Crowned 6mm C in a die on blank planchet crown closed at bottom with oval bottom (over 1,250 known).

Vlack 380 Crowned C in a die, crown open at bottom (13–30 known).

Given these rarity values it would seem the only easily collectible coins are:

- **Vlack 375** struck not counterstamped on blanks
- **Vlack 376** Birmingham counterfeit with the Crowned C integral in the die of a 1749 sou marqué.
- **Vlack 379** Crowned C in die on blanks
- **Vlack 444** Tobago counterstamp on a 1749 Birmingham counterfeit Vlack 376

Collectors do not seem to be interested in this area, so one can acquire great rarities very inexpensively. The French Royal Edict of 1763 authorized these coins. They are thus OMOC (officially made only for the colonies) in North America. They circulated in La Louisianne and the French West Indies from 1765 on, making them every bit as collectible as any other colonial coin in the Red Book.

Perhaps it is the complexity of the story behind the stampees that discourages collectors. But the story behind Machin's Mills and British counterfeit coppers is equally complex and people collect them. The Red Book, the Carlton Catalogue, Bower's Whitman Encyclopedia and Crosby did not list stampees. Vlack listed stampees in great detail. Breen confused black doggs and stampees.

Most colonial coin collectors think of colonial America as including only mainland America. But the West Indies were the most valuable European colonies in the Americas. And many French West Indies coins reached La Louisianne seeing circulation there (i.e. mainland America).

Specific West Indies Islands counterstamped many coins that passed in colonial times for their own use. Vlack lists these in his book *The French Billon Coinage of the Americas*.

A common counterstamped stampee is the Tobago counterstamp on the Birmingham 1749 counterfeit crowned C sou marqué. Tobago (from which the word tobacco originated) changed hands between the Dutch, English, French, Spanish and Polish-Lithuanian Curonians (a Baltic tribe) 33 times until the British finally took over in 1814!

Below is this coin. The obverse shows the TBO counterstamp for Tobago, the reverse shows the crowned C which was integral to the counterfeit die. One can clearly see the date 1749 on the obverse. The fox on the reverse is the différent for Matthieu Renard de Petiton, Paris Mint Director. Renard is a rebus (a picture play on words) Renard is French for fox:

Vlack 444 TBO counterstamp on Birmingham counterfeit of crowned C 1749 sou marqué.

References

Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American Coins*. Whitman Publishing, Atlanta, GA. 2009.

Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins.* 1988 Doubleday, NY.

Crosby, S., *The Early Coins of America*. 1875 Published by the author. Boston

Hodder, M.J., *An American Collector's guide to the Coins of Nouvelle France*, pp. 2 – 35. Coinage of the Americas Conference #8, ANS New York. 1994

Martin, S.F., *French Coinage Specifically for Colonial America*. The Colonial Coin Collector's Club www.colonialcoins.org 2015

Pridmore, F., *The Coins of the British Commonwealth of Nations to the end of the Reign of George VI*. Spink & Sons, London 1960

Vlack, R.A., *An Illustrated Catalogue of the French Billon Coinage in the Americas*. Colonial Coin collectors club www.colonialcoins.org. 2004

Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*. 72nd Edition. Whitman Publishing LLC Pelham, AL 35124

763

Vlack-371 Stampee, Countoured Crowned C Over Genuine Sou Marqué. 22.5mm, 1.69 Grams 4 - 12 Known

762

Vlack-374 Stampee, Crowned C Struck Over Sou Marqué. 23mm, 2.06 Grams 13 - 30 Known

#761

Vlack-375 Stampee, Crowned C on Blank Planchet. Crown Base Straight Not Oval 22.5mm, 1.94 Grams 501 - 1,250 Known

759

Vlack-376 Stampee. Birmingham Counterfeit of 1749 (Fox Différent for Matthieu Renard de Petiton, Paris Mint Director) Sou Marqué with Crowne C Integral to Die. 23mm, 1.98 Grams 201 - 500 Known

745

Vlack-379 Stampee. Crowned C in Die with Oval not Straigth Crown Base.
on Blank Planchet. 22mm, 1.80 Grams Over 1,250 Known

1093

VLACK-144 STAMPEE. TOBAGO (TBO) COUNTERMARK ON BIRMINGHAM COUNTERFEIT 1749-A (PARIS) SOU MARQUÉ WITH CROWNED C INTERGRAL TO DIE. 23MM, 1.80 GRAMS 501 - 1,250 KNOWN

4. 1767 SOU.

In November 1766 Louis XV signed an edict for one sou coins (1 sol or 12 deniers) for the colonies. The edict commented on the dearth of small coins, and its nuisance to commerce. It authorized 1.6 million coins issued in Paris, only for the French West Indies, though they also circulated in La Louisianne.

A Monsieur Vatrin arranged for the 600,000 planchets at 20 to the marc (~12 grams) to be struck outside the Paris mint and pickled in acid, cheaper than the Paris Mint could produce them. Colonists could refuse over five sous at any one time, but would be fined 500 livres if they refused less. The edict's frontispiece shows the crown side as the obverse.

Breen gives exchange rates for them as:

- 2¼ pence (this is also what stampees circulated for in the West Indies).
- Breen also says 1½ doggs (worth 1½ pence) thus 2 ¼ pence. But at the same time Breen equates stampees with doggs! Their values were different.
- 1½ stampees (wait! he also said they circulated for 1 stampee i.e. 2 ¼ pence!)
- ¼ escalin. An escalin was a 5-gram Spanish Netherlands 53% silver coin. ¼ escalin contained 0.72 grams of sterling silver worth 1½ pence sterling or 2 ¼ colonial pence.
- ¼ bit. This contained 0.85 grams of sterling silver worth 3 3/8 pence sterling or 5 colonial pence at 18 to the shilling.

All these are wrong. The sou contained 12 grams of copper but no silver. It passed the same as an English regal copper halfpenny (containing 9.2 to 10.8 grams of copper).

The obverse inscription is COLONIES FRANCOISES, A for the Paris Mint, L XV for Louis XV. Beneath this are crossed lys-headed scepters forming a saltire cross, with the "mains de justice" (hands of justice) in the intersections.

The reverse shows a crowned three fleurs-de-lys within an open laurel wreath. The legend reads: 1767 SIT NOMEN DOMINI BENEDICTUM followed by a croisette potencée, a symbol for the Chief Engraver Charles Norbert Roettier. The legend translates as "blessed be the name of the Lord" the Catholic Episcopal blessing taken from the Book of Psalms in the Bible.

Charles Norbert Roettier (1720–1772) was born into the illustrious Roettier engraving family. He was son of Joseph-Charles Roettier, mentioned in the last chapter who engraved the punches and matrices for the Louisiana coppers. Charles served as Engraver General of the French Mint from 1753 to 1768 and special engraver to the Paris Mint from 1759 to 1772.

After the French Revolution, the Extraordinary Assembly of Guadeloupe met in September 1793, decreeing the remaining sous be counterstamped with RF for Republique Française (spelt Françoise only 26 years earlier).

Authorities say 98% of the coins were recalled to Paris and counterstamped with RF. Red Book estimates for price are very similar in lower grades for the with and without counterstamps, but differ in higher grades.

The counterstamped pieces were called "collots" and passed at 9 not 12 deniers i.e. the same as an English regal halfpenny. I could not find out this word's meaning, but the word caillot means blood clot. Perhaps the obliterating RF counterstamp, carefully placed over the French Royal fleurs-de-lys, represented revolutionary blood obliterating the monarchy. After Louisiana passed from Spain to France in 1800, they saw greater circulation.

Bower's Whitman Encyclopedia states this issue relates only to the West Indies. However, French West Indies coins circulated extensively in Louisiana. Many specimens found their way into American collections. They are a very similar size to US large cents which are 29 mm and 10.89 grams. The 1767 sous are 28.5 mm and ~12 grams and passed as US large cents. According to Breen they have shown up in many non-collector accumulations of US coins, attesting to their circulation as coins in America. NGC documents most survivors as VF also attesting to their circulation.

Vlack wrote six articles about their die varieties from 1961 to 1967 in the Colonial Newsletter, but had little to say about their history.

References

Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American Coins*. 2009. Whitman Publishing, Atlanta, GA.

Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins.* 1988 Doubleday, NY.

Crosby, S., *The Early Coins of America*. 1875 Published by the author. Boston

Ford, J.J., *Edict of the King*. Colonial Newsletter Pages733 – 735. ANS, NY 1908.

Hodder, M.J., *An American Collector's guide to the Coins of Nouvelle France*, pp. 2 – 35. Coinage of the Americas Conference #8, ANS New York. 1994

Martin, S.F., *French Coinage Specifically for Colonial America*. The Colonial Coin Collector's Club www.colonialcoins.org 2015

Vlack, R.A., *An Illustrated Catalogue of the French Billon Coinage in the Americas*. Colonial Coin collector's club www.colonialcoins.org. 2004

Vlack, R.A., *Colonial Newsletter.* ANS. Pages 37 to 178. October to December 1961 to January 1967.

Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*. 72nd Edition. Whitman Publishing LLC Pelham, AL 35124

https://www.pcgs.com/coinfacts/category/french-colonies-1670-1767/5912

269

French West Inides Copper Sou of 12 Deniers. Breen-700; 28mm, 11.81 Grams F+

450

1767 French West Indies Copper Sou of 12 Deniers with RF Counterstamp
Breen-701; 28.5 mm, 12.37 Grams VF

5. Cayenne Two Sous 1780 - 1789.

This is the fifth series of French OMOC coins (officially made only for the colonies) — the Cayenne two sous, struck from 1780 to 1789 during Louis XVI's reign (1774–1792). We have already discussed four other OMOCs: Gloriam Regni, Louisiana crossed L coppers, stampees and 1767 sous. Like stampees and black doggs, Cayenne pieces were not intended for British North America but circulated in the West Indies, and in French Louisiana,

Between 1779 and 1780 Paris stopped counterstamping black doggs and made blank planchets to create stampees. In 1780 they stopped minting stampees and started minting Cayenne two sou pieces. They struck some pieces over old billon sous marqués, especially the 1782 and 1789 two sous. Others, they struck on copper planchets. Vlack noted the metal used was always in question. NGC (Numismatic Grading Company, a US grading company) simply says they are billon. They add that 1780, 1781, 1783 and 1786 dates may be spurious.

Two sous also exist with crowned C counterstamps. Perhaps, used black doggs and 1780 Cayenne 2 sous made their way back to Paris where they continued counterstamping them.

Map of French Guiana and capital Cayenne

People often called French Guiana by the name of its capital, Cayenne. The French founded Cayenne in 1643 and used African slaves to farm the surrounding land. During the French Revolution they abolished slavery. After France sold Louisiana to the US, they developed Guiana as a penal colony where they sent French prisoners for forced labor. Henri Charrière wrote a famous autobiography, *Le Papillon,* about his incarceration there from 1931 to 1946.

In 1981 Belize became independent of the United Kingdom. That year Guyana became the only New World territory still part of Europe (except for the tiny French island of Miquelon off Newfoundland). As part of France, Guiana is today part of the European Union and uses the euro as currency. The European Space Agency built an equatorial space center there.

"Brummies" (people from Birmingham, England) counterfeited Cayenne two sous pieces, especially the 1789 piece, and shipped them to the West Indies. So many circulated, that counterfeits may have exceeded original pieces. Counterfeiters often got the French différents wrong by changing the bird design. Counterfeits are thinner, and come only in copper.

Vlack describes 20 types of Cayenne two sous. They circulated widely in the West Indies where they were counterstamped e.g. M for Montserrat, TB for Tobago, and To for Tortola. They also circulated in New Orleans. Vlack describes 59 varieties of counterstamped 2 sous.

The obverse legend reads 2 SOUS with a date and the mintmark A below (all struck in Paris), and a legend in a ring around: COLONIE DE CAYENNE (différent). The reverse shows a crown over three fleurs-de-lys, and a legend LOUIS XVI.R.DE (différent) FR.ET.DE.NAV.

References

By Sémhur, RaviC (translation) - travail personnel (own work). Sources :File:Guyane department relief location map.jpg by Sting under licence GFDL & CC-BY-SAfrench_guiana.gif, a map from the map collection of the Perry-Castañeda Library (PCL) of the University of Texas at Austin, under licence Public Domain.Few corrections from this map from the French Senat., CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=6409677

https://www.ngccoin.com/price-guide/world/cayenne-2-sous-km-3-1816-cuid-1069339-duid-1296222

Colonial Coin Collector's Club www.colonialcoins.org 2015

Vlack, R.A., *An Illustrated Catalogue of the French Billon Coinage in the Americas*. Colonial Coin collector's club www.colonialcoins.org. 2004

2498

VLACK-393 CAYENNE COPPER 2 SOUS 1789. LETTER I USED FOR NUMERAL. 23 MM, 2.24 GRAMS VF+

2525

VLACK-385 CAYENNE BILLON 2 SOUS 1782. STRUCK OVER SOU MARQUÉ. 23 MM NGC MS 63. 4 - 12 KNOWN

CHAPTER TEN
FRENCH OFFICIAL DOMESTIC EXPORT TO COLONIES

As mentioned, Walter Breen classified coins authorized by the French crown for circulation in Colonial America into three categories:

- **Officially Made Only for the Colonies (OMOC)**
- **Official Domestic Export for colonies (ODEC)**
- **Unofficial Domestic Export for colonies (UDEC)**

The next three chapters will deal ODEC coins on the above list. This Chapter will cover billon issues, Chapter 11 will cover John Law issues, and Chapter 12 will cover Le Chameau.

BILLON ISSUES

This is a complex area so it is worthwhile seeing what the experts say. France struck four billon issues: 1640, 1692–1705, 1709–13 & 1738–64:

HOW PEOPLE CLASSIFY THEM

Robert Vlack

1640 Counterstamps. Proven circulation in the New World.

1692–1705 Restruck douzains. Whether France sent these to the colonies is speculative. Restruck douzains and restruck douzains with a counterstamp both likely circulated as colonials. New planchets likely did not.

1709–1713 Mousquetaires and half mousquetaires. France only authorized Lyon (mintmark D) mousquetaires (30 deniers) for North America. They only authorized Metz (AA mintmark) for France. They did not authorize half mousquetaires for North America, but mentioned them in the Royal ordinance of June 1743 when they reduced them to 9 deniers. Nevertheless, numismatists have noted ground finds of half mousquetaires in North America.

1738–1760 Sous marqués and half sous marqués. Circulated in France and in colonies. Dates 1760 and after did not go to colonies. Minting stopped in 1764.

Walter Breen

1640 Counterstamps. Official domestic export to colonies (ODEC), struck for North America.

1692–1705 Restruck douzains. ODEC.

1709–1713 Mousquetaires and half mousquetaires. ODEC.

1738–1760 Sous marqués and half sous marqués. ODEC.

Michael Hodder

1640 Counterstamps. Probably specifically for New France.

1692–1705 Restruck douzains. Probably specifically for New France only if counterstamp visible.

1709–1713 Mousquetaires. Those of 1710 - 13 struck at Lyon authorized by royal decree to circulate in New France.

1738–1760 Sous marqués and half sous marqués. Large quantities officially shipped to Canada for circulation in New France.

Who to believe?! First a story:

John Ford Jr., a raconteur numismatist and huckster extraordinaire, screwed almost everyone he could. He worked with a forger, Paul Franklin, to produce fake Western ingots, Mexican ingots and US Assay Office $20 territorial gold pieces. Because of his association with the famous coin company Stack's, he could write these up with his imprimatur, as genuine.

A famous contest ensued between two people. The first was Professor Theodore Buttrey, Chair of the Classics Department at the University of Michigan. Later he was Keeper of Coins and Medals at the Fitzwilliam Museum in Cambridge, UK. The second was Michael Hodder, a research consultant to Stack's (who sold the fakes over the years). Buttrey exposed the ingots as fakes in an article in the American Journal of Numismatics in 1997. Hodder wrote a 110-page rebuttal to Buttrey's ANS article.

Eminent numismatists, Eric Newman, Ken Bressett and Michael Fahey supported Buttrey for reasons of scholarship rather than rhetoric.

Others, including the famous Q. David Bowers, initially supported Ford. The book, *Truth Seeker, The Life of Eric P. Newman,* by Leonard Augsburger, Roger Burdette and Joel Orosz, detailed the entire saga and exposed John Ford Jr's. seedy persona. After Sotheby's auctioned genuine gold bars from the *Central America* shipwreck in December 1999, the book says, "not only were most of (Ford's) questionable bars fake but some were entirely imaginary concoctions". Maybe he erred, but Hodder's academic history appears biased.

Walter Breen has great expertise, but lists more unexplained inconsistencies and details. And he tends to be dogmatic. Given all this, I choose Robert Vlack's version of the classification as the most apposite, and summarize his thoughts.

HISTORICAL BACKGROUND

Robert Vlack's book, *An Illustrated Catalogue of the French Billon Coinage in the Americas*, is the most authoritative work on French colonial billon coins. He discusses official edicts, which often specified whether the Crown intended the coins for use (or exclusive use) in the colonies.

French America comprised:

- Nouvelle France (French Canada)
- La Louisianne (Louisiana territory draining into the Mississippi and Mobile rivers, and the Great Lakes region)
- Les Indes Occidentales (French West Indies).

Billon circulated much more in French colonial America than in France.

Réné-Robert Cavelier, Sieur de La Salle (1643–1687) established a passage between the Mississippi River and the Great Lakes starting in the 1680s. In 1699 La Louisianne became a Royal Colony named after the sun King Louis XIV. France ceded La Louisianne to Spain in 1762. Spain retroceded it to France under the treaties of San Idelfonso in 1800 and Aranjuez in 1801. France then sold it to the US in 1803.

Quebec exported beaver pelts. New Orleans exported tobacco, cotton, rice and indigo. But the cost of French imports usually exceeded profits from these sales. Thus, little specie stayed in the colonies.

To encourage specie to stay in the colonies, colonists often "cried up" money often by 33.3%, so that specie could buy a third more than the denominated coins. But they needed specie to buy imports so it seldom hung around long.

Colonists made do with barter, money of account, card money, bills of exchange and other paper instruments. In 1717 France abolished "crying up" of specie.

Even when France sent specie to the colonies e.g. for military pay, it landed up back home because colonists used it to pay for imports.

Gresham's Law states: "bad money drives out good", e.g. paper money entering circulation will make people hoard gold and silver and spend only the paper money. Colonists tried to hoard specie. They could not buy imports with any of the substitutes.

Sir Thomas Gresham (1519–1579), who first voiced this phrase, was a financier working in Queen Elizabeth's court. He founded the Royal Exchange in London which later housed Lloyd's Insurance, though they considered the first stockbrokers far too déclassé to use the Royal Exchange!

Colonists in French America preferred silver even in the form of low-grade billon coins. In the early 1720s, New Orleans colonists would not accept copper coins, only silver and billon. French Canada refused to accept the French copper 9 denier issues of 1721 and 1722. As the Intendent said, "it is not our practice to accept copper coins". When they devalued these copper 9 deniers coins to 6 deniers, La Louisianne accepted them.

Archeological digs in French colonial areas have shown the great majority of coins were billon not copper. Billon means less than 50% silver. French billon was 20–25% silver. It looked like silver when new (because of an acid planchet wash which dissolved surface copper leaving only silver).

Under 25% silver the coins turned an unpleasant black after decades in circulation. The French called them "noirs" and the English called them "black doggs". Smaller provincial French mints often added even more copper to the billon making the coins even more coppery. Billon is brittle and laminates and splits easily.

BILLON COINS

Although France made millions of billon coins the great majority ended up being re-melted for the silver. I will now go over the four types of billon used in the colonies:

- **1640 Edict fleur-de-lys counterstamps**
- **1692–1705 15 deniers**
- **Mousquetaires 1709–1713**
- **Sous marqués 1738–1764**

A. EDICT OF 1640 FLEUR-DE-LYS COUNTERSTAMPS IN BEADED OVAL

In 1636, King Louis XIII increased the value of the quarter ecu from 15 to 20 sols, and the one ecu coin from three to four livres. To make fractional coins equivalent, he raised the douzain (12 denier billon coin) from 12 to 15 deniers. One denier went to the person who delivered the old douzains to the Paris Mint and two deniers went to the king! They confiscated any douzains not turned in within two months. Guess who got them? The king!

A 1640 Edict authorized all douzain-sized French billon coins (and other European billon coins) be counterstamped with a fleur-de-lys in a beaded oval. When thus marked, they called these low value coins sous marqués now worth 15 not 12 deniers. Sou meant one sol (12 deniers), and marqué meant counterstamped.

1640 fleur-de-lys countermark (at 10 o'clock) on douzain aux croissants of Henri II (1547–1559). #697
Reverse cross fleury formed by 8 croissants, cantoned with 2 crowns & 2 H's. Ciani 1979 and Vlack p.10 g. R6

1640 fleur-de-lys Countermark (left 12 o'clock) on coppery douzain of Pope Clement VIII #698

B. 1692–1705 15 DENIERS

Breen treats these as a continuation of the 1640 counterstamps. Vlack says no one knows whether France sent these coins to the colonies. Only French provincial mints struck these billon coins.

An old 1666 decree said people could only pass up to 200 douzains per payment. Merchants ignored the decree. The 1692 decree mentioned that merchants circulated bags of 4,000 billon coins to make 200 livres. This practice withdrew small change from colonial circulation, and included counterfeits, low weight coins, and foreign coins etc.

In 1692, France authorized 6 million livres (120 million douzains) by restriking old douzains (billon 12 deniers coins) as 15 deniers coins. If they ran out of old douzains, mints could use new billon planchets. Many mints referred to new planchets as as "billon neuf sols" (new billion sols).

The Edict of September 1709 (which also authorized mousquetaires) mentioned they had only ever struck half of the authorized 120 million douzains of 1692.

This 1692 series thus had three types of coins:

a. Restruck old douzains (3 deniers profit)
b. Restruck old douzains with visible 1640 counterstamps (3 deniers profit already taken)
c. New planchets struck with new dies (billon neuf).

Vlack felt they intended a. and b. likely for use in the colonies; and c. for use only at home. Hodder opined they would send them to the colonies only if the fleur-de-lys counterstamp was visible, and implied they counterstamped the newly struck coins after striking (i.e. a fourth type: d. new planchet with counterstamp).

The new coin's obverse showed a crowned shield of three fleurs-de-lys, with SIT NOMEN DOMINI BENEDICTVM (date).

The reverse showed eight addorsed (back to back) crowned L's around the Paris mintmark A within a small circle, cantoned with four fleurs-de-lys, with a legend reading: LVD.XIII D.G.FR.ET.N.R.

1692 15 deniers. Cursorily appears struck over old douzain (notice old lettering at bottom of obverse) but is a double struck billon neuf on closer examination. Similar but not same design as pre-1640 sols previous page #695

Breen (lumping 1692–1705 15 deniers with the 1640 countermarks) says: "several provincial mints made up new dies dated 1692 through 1700 to overstrike on the remaining obsolete billon coins (including some already countermarked); when supplies ran out, most French mints then in operation struck similar coins with dates from 1693–1705 on new blanks — the billon-neuf sols".

Older douzain obverses usually show a crowned shield with three fleurs-de-lys, but may include the arms of Navarre. The reverse usually shows a cross, but not always the cross shown of eight addorsed L's. Devices in the obverse and reverse fields of older douzains varied.

C. MOUSQUETAIRES 1709 - 1713

An Edict of May 1709 made billon proportional to prevailing silver and gold to curb "billonnage". Billonnage was the practice of profiteering from dealing in defective coins. People were still making bags of 4,000 billon coins to make 200 livres, of which a significant percentage were counterfeits, clipped coins, worn coins, copper, foreign coins etc. This 1709 edict increased old douzains of 15 deniers to 18 deniers throughout France and the colonies.

A second Edict in September 1709 proposed a new heavier billon 30 deniers coinage. The Lyons Mint (D mintmark), and the Metz Mint (AA mintmark) struck the coins. The Edict only authorized Lyons coins for the colonies (Lyons is in southeast central France). The Metz Mint was close to the northeastern border, and close to troops, thus ideally located to pay soldiers (including the half mousquetaire).

They called these new 30 denier coins mousquetaires because the hollow Greek crosses resembled the emblem worn on the tabards (sleeveless jerkins) of French Royal Musketeers.

Greek Cross on jerkins of Musketeers.

Some have said the addorsed L's resembled the moustaches of musketeers, but this sounds more like Hollywood than numismatics!

1710 AA Mousquetaire Greek Cross reverse #2491

Mousquetaires comprised the first big issue billon coin for colonial America. France minted over 100 million of them! Curiously they valued them at 27 deniers in the colonies, not 30 deniers (a sure way to ensure the coins left the colonies for France)! Mousquetaires circulated for generations and were later called "old sols". They were not sols at all, they were two and a half sol pieces. Mints melted many of them. Others ended up countermarked as stampees.

Norbert Roettier (1665–1727) engraved the mousquetaire dies. Norbert was yet another member of the famous Roettier dynasty of engravers. Born in Antwerp, he became

Engraver-General to the British Royal Mint in 1695. A strong Jacobite, (favoring Catholic successors of King James II after his 1688 deposition), he moved to Paris to join the Stuart court which had moved there. France appointed him Engraver-General to the French Mint.

The Crown also authorized a half mousquetaire at 15 deniers, struck only at the Metz mint (mintmark AA) from 1711 to 1715. They did not intend these for the colonies, though many ended up there anyway.

Half Mousquetaire 1713 AA (Metz mint) #584

The Crown issued ten Arrêts, Edicts or Declarations between May 1709 and August 1738 revaluing douzains, mousquetaires, and demi-mousquetaires! Vlack shows a table detailing which coin they revalued up or down over ten different edicts. A royal mess!

D. SOUS MARQUES 1738 - 1764

When supplies of mousquetaires ran out, Louis XV issued the Arrêt of August 1738 (signed in September 1738). The preamble said Netherlands had just halved the value of their billon sols i.e. their two-gram billon coin now had half the value. Thus, if Netherlands sols were worth half, they would move to France where their silver content would buy more.

Louis XV did not want foreign coins over which he had no control flooding into France. So, he responded by decreasing the value of existing French billon by 25%, and declaring foreign coins unpassable in France.

To encourage use as small change, the Arrêt said merchants could only use up to 10 livres of billon at a time to pay for goods. But just as before, these restrictions did not work. The king retired all mousquetaires and replaced them with sous marqués and half sous marqués.

Sous marqués (24 deniers) passed in France and the colonies at the same rate. Hodder interpreted the wording of the Arrêt: "dans tout nôtre Royaume, pays, terres et Seigneuries de nôtre obéissance", as including the colonies. The translation would be "in all our kingdom, country, lands and lordships obedient to us".

They wrongly called the 24 denier piece "a sou", and the 12 denier piece a "half sou". They should have called them the double sou and sou. A sou was an old word for a sol of 12 deniers. But if you think of the word sou as being equivalent to a copper, then it makes more sense. Pragmatically, Vlack and Breen both call sous marqués "double-sols", and half sous marqués "sols".

Likewise, they were not marqué because they never countermarked them. The French just used the same name for a similar sized piece of billon.

Many mints (Breen says all 30 French mints) struck sou marqués in 1738. But by 1752 only Paris and Strasbourg were minting them and by 1764 coinage stopped. During The French and Indian War (1754–1763) Montreal fell in 1760. Thus, France did not export coins dated after 1760 to the colonies.

Sou Marqué 24 deniers (2 sols) 1762 BB Strasbourg
a nice example, but wrong date for the colonies #1594

Early on, provincial French mints made billon with the prescribed 19.95% silver according to Vlack. In time, branch mints diluted billon with more and more copper just like the mousquetaires.

The Crown designed sous marqués to replace old billon and previous mousquetaires (especially the 1710–1713 mousquetaires).

People had to hand in their old billon at the mints, who paid them bullion value for it. Vlack says they demonetized sous marqués in 1746.

Why this constant reminting of coins? Each time the king reminted, he profited from the seignorage. Seignorage is the difference between the cost of production and the denominational value of the coin, which can be considerable.

In medieval times they called the system "renovatio". Many European rulers abused the system. Some even called in the coins every two years for re-coinage into thinner and thinner coins! If a French king owed a million livres, he could restrike the same coin with half the silver. He would then owe less silver! No one in France had more debts than the king!

They minted sous marqués from 1738 to 1764. The commonest date is 1739.

Half sous marqués are much rarer. They minted them from 1738 to 1748. The commonest date is 1740 like this one:

Billon half Sou Marqué 1740 BB Strasbourg #1720

Counterfeit sous marqués are very common especially 1724 H, 1751 BB and 1755A. These circulated alongside genuine coins.

After the 1763 Treaty of Paris, France ceded Canada to Britain. Britain devalued French billon coins to a farthing. Either the Brits did not realize the coins contained silver or wanted to get the coins out of the country. Most of these billon coins ended up in Louisiana and the West Indies because of their higher silver content, where they circulated as black doggs passing at 1½ pence.

The sou marqué obverses showed a crowned L with three fleurs-de-lys in the field and the legend: LUD.XV.D.G.FR. (Mint Director différent).ET. NAV.REX. This stood for Louis XV by the grace of God King of France and Navarre.

The sou marqué reverses showed crowned flowery L's with a legend reading SIT NOMEN DOMINI BENEDICTUM (différent for Chief engraver) (date). This was the Latin Catholic Episcopal blessing : "Blessed be the name of the Lord".

In summary Vlack lists five billon issues for official export:

- **1640 Counterstamps on old douzains**
- **? 1692–1705 Restruck over old douzains**
- **1709–13 Mousquetaires Lyon (D only)**
- **1738–1760 Sous marqués all mints**
- **1738–1748 Half sou marqués all mints**

The Red Book lists:

- **1709–1713 Mousquetaires Lyon (D) and Metz (AA).**
- **1711–1713 Half mousquetaires Metz (AA).**
- **1738-1760 Sou Marqué various mints**
- **1738–1748 Half Sou Marqué various mints**
- **Red Book omits 1640 counterstamps and 1692 restruck douzains.**

References

Augsberger, L., Burdette, R., Orosz, J., Truth Seeker The Life of Eric P. Newman. Ivy Press Inc. Dallas, TX 2017

Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American Coins*. 2009. Whitman Publishing, Atlanta, GA.

Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins.* 1988 Doubleday, NY.

Crosby, S., *The Early Coins of America*. 1875 Published by the author. Boston

Hodder, M.J., *An American Collector's guide to the Coins of Nouvelle France*, pp. 2 – 35. Coinage of the Americas Conference #8, ANS New York. 1994

Vlack, R.A., *An Illustrated Catalogue of the French Billon Coinage in the Americas*. Colonial Coin collectors club www.colonialcoins.org. 2004

Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*. 72nd Edition. Whitman Publishing LLC Pelham, AL 35124

https://en.wikipedia.org/wiki/Musketeers_of_the_Guard#/media/File:Mousquetaires_du_roi.jpg

697

1640 Fleur-de-Lys in Beaded Border Countermark on Henri II (1547 - 1559) Douzain Aux Croissants, Reverse Cross Fleury From 8 Croissants, Cantoned with 2 Crowns & 2 H's 28mm, 2.29 Grams

695

1692 15 Deniers Double Struck Both Sides (Note Doubling of DOMINI & Stray Fleur-de-Lys & A) No Obvious Undertype or Counterstamp. Possibly Billon Neuf. Ciani-1979; 22mm, 1.81 Grams F

2491

1710 AA (Metz) Mousquetaire. 30 Deniers. Greek Cross Reverse. Vlack-8; 23mm, PCGS AU 53

584

1713 AA (Metz) Half-Mousquetaire. 15 Deniers. Greek Cross Reverse. Vlack-14; 18mm, 1.01 Grams UNC

1594

1762 BB (Strasbourg) 24 Deniers. Sou Marqué. Vlack-276a; 22mm NGC MS 62

1720

1740 BB (Strasbourg) 12 Deniers. Half Sou Marqué. Vlack-325; 16.5mm NGC MS 62

CHAPTER ELEVEN
FRENCH OFFICIAL DOMESTIC EXPORT TO COLONIES

As mentioned, Walter Breen classifies French coins for Colonial America into three categories:

- **Officially Made Only for the Colonies (OMOC)**
- **Official Domestic Export for Colonies (ODEC)**
- **Unofficial Domestic Export for Colonies (UDEC)**

The next two chapters will continue to deal with the second item on the above list (**ODEC**). The last chapter covered French billon issues. This chapter will cover John Law issues. Chapter 12 will cover Le Chameau. These are all **ODEC**.

John Law by Casimir Balthazar

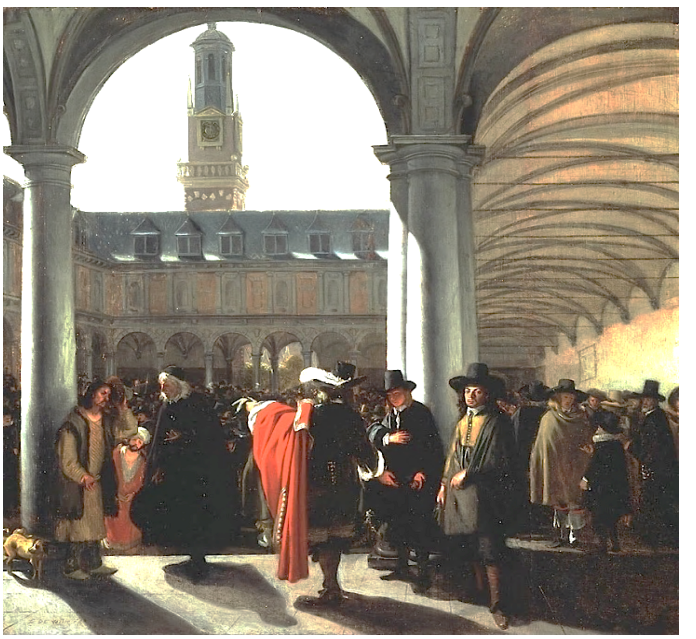
John Law and the Mississippi Bubble

Who would have predicted a dandy Scottish gambler would take over the finances of France? John Law (1681–1729) was the most unlikely character! Was he a con man or financial wizard? More likely a financial wizard who had not completely figured things out yet. Thomas Edison may have invented the record player. But it was Victrola who ironed out all the problems, marketed it, and made their fortune. Born into a family of bankers and goldsmiths from Fife, Scotland (35 miles north of Edinburgh), John Law started working in the family bank aged 14. After three years his father died, and he moved to London to live a lavish life as a gambler and dandy. He was a "rich kid".

At 23, he fought a duel over a woman. He killed his opponent running him through with his sword. Authorities sentenced him to death. After a while in prison they commuted his sentence to a fine for a lesser charge of manslaughter. But his opponent's lawyers started a suit to convict him. Law escaped from prison and high-tailed it to Amsterdam.

There he continued gambling but found a new distraction: The Amsterdam Stock Exchange. He constantly refined his ideas of gambling, finance and economics. In the mornings he studied finance; in the evenings he gambled. He could do complex mathematical calculations in his head, which helped him figure out the chances of winning almost every gambling game. The Amsterdam Stock Market and how it worked also fascinated him.

After five years he concluded that the availability of money and credit were the reason for Dutch commercial success and decided that paper money was the path to economic success. He suggested it to Scotland. They were not interested. Then, after the 1707 Act of Union between England and Scotland, Scotland also outlawed him for manslaughter.



Amsterdam Stock Exchange 1653

Law wrote a treatise on a land bank in 1704, and another treatise on money and trade in 1705. He concluded that increasing the money supply would increase trade, production and employment. He originated several ideas to facilitate this: paper money, fractional reserve banking, and easier credit. His new formula for banking was:

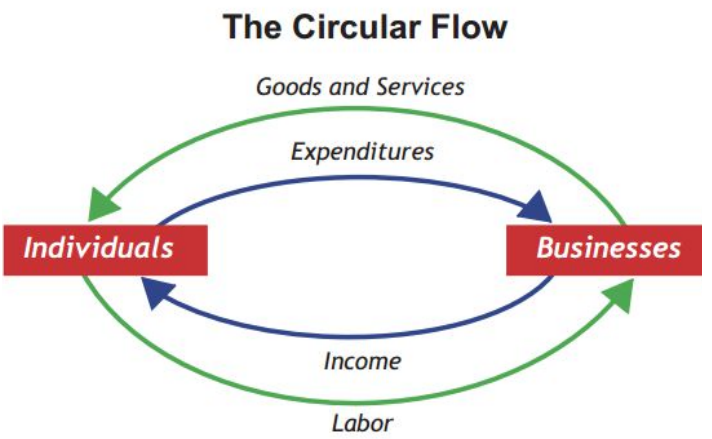
- Assets are loans (private and public) and specie on deposit
- Liabilities are deposits and printed bank notes.

He was way ahead of his time! With fractional reserve banking, banks could loan out more than the specie on deposit, and make money from interest, which increased credit.

Let us assume that the fractional reserve ratio is 50%. If a person borrows $100 from bank A, he can deposit that money in bank B, who can then loan out $200, which can then be deposited in bank C, who could then loan out $400. This multiplication effect increased the money supply - normal practice today.

Before John Law, mercantilism was the prevailing economic theory in Europe. Mercantilists viewed wealth as accumulating silver or gold in the mother country. They eschewed paper money, credit and IOUs.

In those days people often deposited their gold with a goldsmith for a goldsmith's receipt. Sometimes, they paid others with their goldsmith's receipt, but there was no multiplication effect. The only money was gold and silver coin (specie). No one trusted paper money or credit. The money supply was fixed.



Circular Flow of goods, services and money

Law originated the circular flow model of money (see below opposite) later espoused in the 1750s by the French physiocrats. The physiocrats said that land development (read agricultural products) was the source of all wealth and should be highly priced. They were the first to emphasize productive work as the source of national wealth.

Another Scottish economist, Adam Smith, had even better ideas, expressed in his revolutionary book, *Wealth of Nations,* published in 1776. Alexander Hamilton tried to put Smith's ideas into practice in the new young America. He conceived the Bank of the United States to handle America's colossal revolutionary war debt. Congress drafted the Bank's first charter in 1791, which Washington signed. But in 1836, President Andrew Jackson vetoed the third re-chartering the bank. Instead, he transferred its funds to smaller "pet" state banks, setting back American banking for decades.

It was not until 1863 that the US National Banking Act would establish a regulated chain of National Banks with a fractional reserve system.

In the 1900s John Maynard Keynes would advocate similar policies to John Law. He said one could stimulate the economy through active monetary and fiscal policy. Monetary policy refers to central banks changing their interest rates and fractional reserves. Fiscal policy refers to governmental taxing and spending. Keynes pushed fractional reserve banking, more elasticity of the money supply, and more government spending. Keynes also thought the government could end the Great Depression by huge government spending. Disastrously, he blundered.

The Federal Reserve system addressed the elasticity of the money supply, which the National Banking System could not. And government spending increased the velocity of money. A one-hundred-dollar bill under a mattress does no good to the economy. But $100 spent 20 times in one year (high velocity of money) stimulates a lot of economic activity.

John Law tried presenting his new economic ideas to various European courts, but without success. He believed, like an early Keynesian, that increasing the money supply would stimulate the economy. He was certainly much

more polished than Keynes! A polylingual gambler, a womanizer and an immaculate dresser, he had all the accoutrements for a successful French financier! From 1707 to 1717 he travelled back and forth between France and Netherlands.

Another reminder: Before 1752, the New Year started not on January 1st, but on March 25th. In 1752, the "New-Style" calendar took over (New Year starting January 1st). One way to label dates from January 1st to March 25th before 1752 is to give both Old and New Style calendar years. Thus, January 1720 was January 1721 as we think of it today, but can be written January 1721/20.

Authorities vary in dates for "what happened when" in the Mississippi Bubble.

Louis XIV started the Compagnie d'Occident (Company of the West) with a charter and exclusive trade privileges with his Royal Ordonnance on 27th September, 1714.

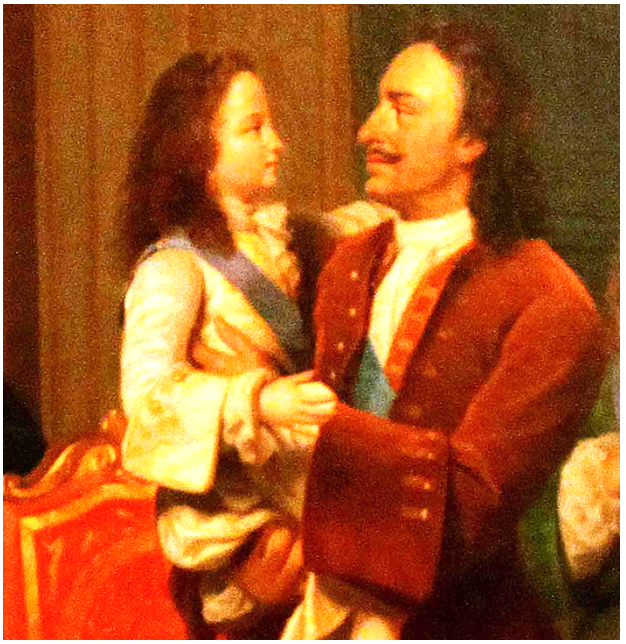
Louis XIV the profligate spender.

Versailles Palace

Louis XIV (1643–1715) was profligate. He borrowed excessively to build his palace. When his great-grandson, Louis XV, took over aged five, France verged on bankruptcy because of Versailles. The Crown owed three billion livres. They took in 145 million in taxes and spent 142 million a year. That left 3 million livres to pay interest on 3 billion! Most of the debt was billets d'Etat (like T-Bills) and billets de Monnaie (floating debt).

The Court appointed the Duc d'Orléans regent for the new king. And "le Duc" was desperate!

The French government had defaulted on its debt, decreased interest payments and increased taxes. All of this depressed the economy. Parenthetically, I often think the only way the US will pay off our huge national debt (standing at $23–24 Trillion in 2020) is to allow controlled inflation to reduce its size.



Peter the Great picks up Louis XV in 1717

In October 1715 John Law made a proposal to nobleman Guy-Crescent Fagon, physician and royal gardener. He said a bank should receive all royal revenues and that same bank would issue paper notes backed by those coins, or more accurately his new idea — a fractional reserve system.

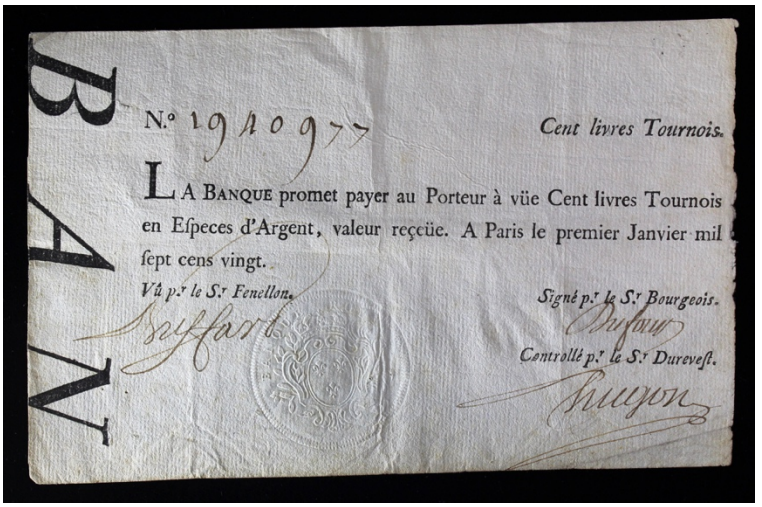
The epitome of sartorial elegance and gambling in high stake joints, Law quickly met influential people. He charmed his way around Paris, and he charmed the Duc d'Orléans, Regent for the new King Louis XV.

In early 1716, Law presented a plan to the desperate Duc for a Banque Générale: replace specie with paper credit. The Duc had already tried to pay back people with government bonds. Then the Duc tried to devalue gold. Both met with little success.

Philippe, Duc d'Orléans. What a bow tie!

Influenced by John Law in May/June 1716 the Duc granted him the privilege of a private bank with a capital of 6 million livres, 25% in coin (1.5 million livres) and 75% in state bonds (4.5 million livres). Law got the billets d'Etat (equivalent to T Bills) at 70% on the livre, but used their full face value for the bank capitalization (even back then they used creative accounting!). Despite their non legal tender status, the French public accepted them because the bank promised redemption in specie. The public knew the only alternative was a progressive debasement of specie. They did not want to go there! Law's bank also made loans, thus extending credit. Voila!

Though the bank business cruised along, it would never be enough to retire three billion livres of royal debt! In August 1717, Law bought the Compagnie d'Occident (also called the Mississippi Company). It had a 25-year trade monopoly for La Louisianne (soon after, La Louisianne added Illinois country). In return, Law had to transport 6,000 settlers and 3,000 slaves to La Louisianne.



100 Livres banknote from Banque Royale. #1847
Translation: The Bank promises to pay to the bearer on sight 100 livres Tournois in pieces of silver, value received. In Paris Jan 1, 1720

In January 1719/1718 Law underwrote the equivalent of an IPO of his Mississippi Company. This was a government monopoly, which he bankrolled with 200,000 shares of 500 livres each i.e. 100 million livres of stock certificates. The public bought the shares for 15% down and monthly payments of 5%. They did not have to pay with specie, only with paper banknotes or French state bonds. His company converted the state bonds received into debentures promising a 4% interest. For three months, prices were stable.

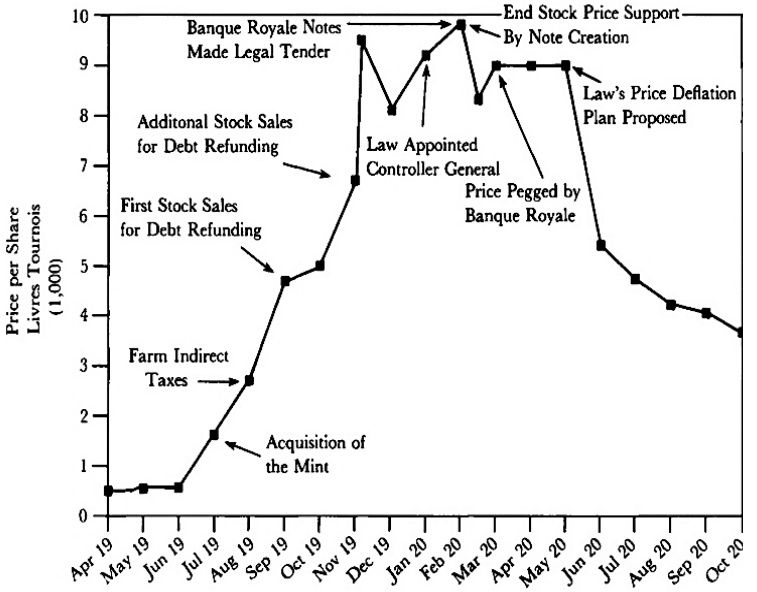
Law's Mississippi Company bought the Compagnie des Indes Orientale (East India Company) and the Compagnie de Chine (China Company) from the French government. He then changed the name of the company in May 1719 to Compagnie Perpetuelle des Indes (Perpetual Company of the Indies). Later that month he changed the name to the Compagnie des Indes. But everyone still called it the Mississippi Company.

By July 1719 the Mississippi Company share price tripled to 1,500 livres. The same month Law bought all French Mints. He could now coin money and make a profit on the coinage (seignorage). He paid for it by issuing another 50,000 shares of stock at 1,500 livres, i.e. another 75 million livres. The public did not seem to notice the dilution effect.

In August 1719 Law bought the French African concession which included tobacco and a slave trading monopoly.

The same month he bought the right to collect French taxes for a payment of 1.2 billion livres. To pay for that he sold yet more stock — yet more dilution; people still did not figure it out.

Not only was Law good at finance, he had a flair for marketing too! The Compagnie des Indes (Mississippi Company) circulated rumors that gold flowed freely in the new Americas. Law showed no interest in squelching such rumors! These rumors and Law's marketing lead to wild speculation. But his settlements in New Orleans failed.



Compagnie des Indes Share price

Copyright American Economic Association; reproduced with permission of the Journal of Economic Perspectives. From Peter M. Garber, "Famous First Bubbles" Journal of Economic Perspectives, Vol 4, #2, Spring 1990. Labelled in "New Style" calendar.

The Mississippi Company held lots of French State debt and changed it to Mississippi stock. By September 1719 the shares had risen to 5,000 livres. Law wanted to refund the French government's debt. So, he sold another 300,000 livres of stock at 5,000 livres per share i.e. 1.5 billion livres, which retired some of the French Crown's debt of three billion livres. No one had yet invented the term "dilution effect"!

By November 1719 the stock had risen to 7,000 livres, and Law sold even more stock for debt refunding. This is how it worked: the public could pay for the stock in specie, paper money, or by French government bonds (i.e. royal debt); this conveniently helped to retire the enormous debt of the French King, for which the Royal House expressed eternal gratitude!

In December 1719 the stock price rose to 10,000 livres. This gave rise to a new word, "millionaire", to describe all the newly rich French laborers! The craze grabbed everyone! All the while, Law promised a 4% dividend on the stock, although La Louisianne had no gold and was not producing much of anything. There were hardly even any people there!

To encourage people to populate the region, Law promised prisoners they could go free if they married a prostitute and lived in La Louisianne! That killed two birds with one stone! Get rid of prisoners and get rid of prostitutes!

In January 1720/1719 the grateful Duc d'Orléans appointed Law Controller General of Finances (equivalent of Secretary of the Treasury) and Superintendent General of Finances.

In February 1720/1719 the Duc changed Law's private Banque Générale into the Banque Royale. Then the Mississippi Company merged with the Banque Royale. This merged the state's finances with the King's, who now backed all the printed paper currency! In the end Law had issued 625,000 shares of the Mississippi Company. When valued at 10,000 livres peak capitalization was 6.25 billion livres!

Something similar happened in the US in the 1920s: banks could handle both investment banking and personal banking. But it was too easy for a bank to use private funds for stock schemes. So, after the crash of 1929 the government outlawed this, passing the Glass-Steagall Act of 1933, which separated investment and private banking. Yogi Berra called it déjà vu all over again!

The Duc then authorized the printing of one billion livres of paper currency (this time not backed by specie). By March 1720/1719, they were printed.

But Law saw that, with his excessive printing of paper money, inflation had taken hold. In May 1720 the stock was still worth 9,000 livres. But by July 1720 inflation reached 23% in a single month. In a year prices had doubled. Law realized the stock was overvalued and so devalued the Banque Royale banknotes by 50%. This led to a public uproar. So, Law restored the bank note value but stopped specie payment rights. This resulted in a further drop in share price. He hoped specie would flow from his Compagnie des Indes (alias Mississippi Company) to back paper money. But it never came.

Law advised the king to issue edicts to say printing money and spending gold was illegal, then to close the banks. This caused even more public agitation.

Then Law said he would buy back shares with printed money and printed more and more to stop people wanting gold. Law got the King to issue another edict that the public could not spend gold for a purchase over 100 livres. After more riots, they made gold legal to spend again.

Then a funny thing happened. People began to wonder whether this was all real, and they started to sell their stock. So, they sold their stock for banknotes, which they then converted to specie. But Law's original fractional reserve was only 25% i.e. they only had 25% of the original issued bank notes backed by specie. Remember this was before people felt comfortable with paper money. (The 2019 US fractional reserve ratio was 10%).

So, with insufficient specie to pay back investors the bank closed (today called a run on the banks). The share value dropped further.

In December 1720 the stock had dropped back to 500 livres. Law was Controller General and Superintendent of Finances, the highest financier in the land. He controlled the Royal Bank, the Mississippi Company (state monopoly for all colonies outside France), all the French Mints and collected all French taxes. Immensely wealthy, he had extensive real estate holdings in Paris and several chateaus outside Paris.

The Duc dismissed Law as Controller General and Chief Director of the Banque Royale. Law disguised himself as a woman and took a carriage from Paris to Brussels. Very wise!

No one caught him. He spent several years touring Europe as a gambler. Pardoned of manslaughter in 1719, he returned briefly to London in 1725, then travelled to Venice in 1729 where he died destitute. He died from pneumonia.

The first bubble in modern financial history was tulipomania, in Holland in 1637. The second was the Mississippi Bubble in France in 1719–1720. English financiers had been watching Law intently, itching for the opportunity to do something similar. Sure enough the South Sea Bubble disaster hit England in 1720.

Bubbles still occur and may follow bubbles in other countries, often spurred by easy money and excessive credit. For example, the Japanese stock bubble in the early 1990s led to funds surging into Asia where another bubble occurred from 1997 to 1998. Easy money and credit in the US in the late 1990s contributed to the dotcom bubble from 1995 to 2001.

Contemporary political cartoon of Law from *Het Groote Tafereel der Dwaasheid* (1720); text reads "*Law loquitur.* The wind is my treasure, cushion, and foundation. Master of the wind, I am master of life, and my wind monopoly becomes straightway the object of idolatry. Less rapidly turn the sails of the windmill on my head than the price of shares in my foolish enterprises".

The Mississippi Company and the South Sea Company taught us the following lessons:

- people in places of power can take ill-advised actions
- people are greedy
- it is too easy to leverage finances with excessive credit.

Law always maintained that his "system" was for the good of all (though he benefitted much more than others, amassing a fortune during his heyday).

The Mississippi Bubble was not just an isolated stock bubble. Law, a foreigner, took control of government finance, all imports and exports, minting money, and printing banknotes. He used a bank with the King's backing to print the money, merge with his Mississippi Company, and sell stock in it. Economic historians are mixed about his intentions and his legitimacy.

In summary, the steps Law took were:

Phase 1: Banque Privée based on 1/4 specie, 3/4 State bonds. Fractional banking and credit.
Phase 2: Paper money and State bonds bought Mississippi Company shares, 15% down, rest on credit. State debt thus reduced.
Phase 3: Public borrowed and spent against their stock. To pay for this Law printed more money.
Phase 4: After inflation Law halved the value of notes and outlawed gold. This led to low confidence and runs on the bank
Phase 5: Bubble burst.

Colonial Coins of John Law

Law ordered 1.6 million copper coins be shipped to Canada and 400,000 to Isle Royale (now Cape Breton Island, where the Fortress of Louisbourg guarded the entrance to the St. Lawrence River). The Royal Edict of May 1719 provided for this (before Law gained control of the French mints in July). The Edict specified demi-sols (6 deniers). Law schemed to revalue these at 12 deniers, then in July 1720 to 16 deniers. After all, if he was going to issue paper money why not tokenize coins? By 1721 their value dropped to 9 deniers, and by 1724 back to 6 deniers as merchants valued them by copper weight only.

Breen researched Law and listed only the 1720 6 deniers copper and 20-sol silver pieces as Official Domestic Export the Colonies (ODEC). Law's Mississippi Company controlled the mints from July 25th, 1719, to Jan 5th, 1721/1720. But Law was not keen on specie and preferred paper money. Although he was the 1700s version of Keynes, Law still had some mercantilist feelings and opposed sending specie abroad. Like the mercantilists, he felt colonies should ship natural resources to the mother country, paid for by paper credit towards finished goods.

Martin Smith in the Numismatist July 2010, p57, surveyed 78 demi-sols of which 23 were Reims (S Mintmark), and found coins made in 10 mints. He estimated 500 such coins survive today. We still do not know how many of the authorized 1.6 million coins reached the colonies.

Some authorities, including the Red Book have expanded the John Law issues to include the liard (3 deniers), and sol (12 deniers). These both look just like the demi-sol except for their size (28 - 32mm for the sol, 26mm for the demi-sol, and 21mm for the liard). None have denominations on them. The copper sol is very rare. PCGS (Professional Coin Grading Services) record only seven uncirculated and 12 circulated silver 20 sol pieces.

The largest three companies in history at peak value by capitalization (adjusted for inflation today) were:

- Dutch East India Company, $7.9 trillion
- Mississippi Company, $6.5 Trillion
- South Sea Company, $4.3 Trillion.

References

Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American Coins*. 2009. Whitman Publishing, Atlanta , GA.
Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins.* 1988 Doubleday, NY.
Crosby, S., *The Early Coins of America*. 1875 Published by the author. Boston
Hodder, M.J., *An American Collector's guide to the Coins of Nouvelle France*, pp. 2 – 35. Coinage of the Americas Conference #8, ANS New York. 1994
Martin, S.F., *French Coinage Specifically for Colonial America*. The Colonial Coin Collector's Club www.colonialcoins.org 2015
Smith, M., John Law's Demi-Sols of 1719 – 1724, The Numismatist July 2010, Page 57.
Vlack, R.A., *An Illustrated Catalogue of the French Billon Coinage in the Americas*. Colonial Coin collector's club www.colonialcoins.org. 2004
Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*. 72nd Edition. Whitman Publishing LLC Pelham, AL 35124
https://en.wikipedia.org/wiki/John_Law_(economist)#/media/File:John_Law_cartoon_(1720).png
By Rama - Own work, Public Domain, https://commons.wikimedia.org/w/index.php?curid=7428497
https://www.youtube.com/watch?v=diEVmQZ1QfM
https://www.youtube.com/watch?v=P7ZEZR3PvZU
Garber, Peter M. 1990. "Famous First Bubbles." *Journal of Economic Perspectives*, 4 (2): 35-54
https://mises.org/wire/john-law-and-mississippi-bubble-—-300-years-later
https://en.wikipedia.org/wiki/Financial_history_of_the_Dutch_Republic#/media/File:Emanuel_de_Witte_-_De_binnenplaats_van_de_beurs_te_Amsterdam.jpg
By Bureau of Economic Analysis (BEA), U.S. Department of Commerce, October 2014 - Measuring the Economy : A Primer on GDP and the National Income and Product Accounts, Public Domain, https://commons.wikimedia.org/w/index.php?curid=36280157
By Frédéric Bazille - National Art Museum of Azerbaijan, Public Domain, https://commons.wikimedia.org/w/index.php?curid=27258753
https://en.wikipedia.org/wiki/Philippe_I,_Duke_of_Orléans#/media/File:Portrait_painting_of_Philippe_of_France,_Duke_of_Orléans_holding_a_crown_of_a_child_of_France_(Pierre_Mignard,_Musée_des_Beaux-Arts_de_Bordeaux).jpg
By G CHP, CC BY-SA 2.5, https://commons.wikimedia.org/w/index.php?curid=72739008

2497

John Law 1720 Liard (3 Deniers) BB (Strasbourg) Dupl-1694; 21mm, 2.81 Grams VF

2484

JOHN LAW 1720 DEMI-SOL (6 DENIERS) S (REIMS) DUPL-1693; 26MM, 5.96 GRAMS EF

1593

John Law 1720 20 Sols Silver A (Paris) 21mm, 3.73 Grams UNC

CHAPTER TWELVE
FRENCH OFFICIAL DOMESTIC EXPORT TO COLONIES

This is the last chapter on ODEC coins. Recall Breen's classification of French coins for colonial America.

- Officially Made Only for the Colonies **(OMOC)**
- Official Domestic Export for colonies **(ODEC)**
- Unofficial Domestic Export for colonies **(UDEC)**. I will cover this under foreign coins which circulated in colonial America.

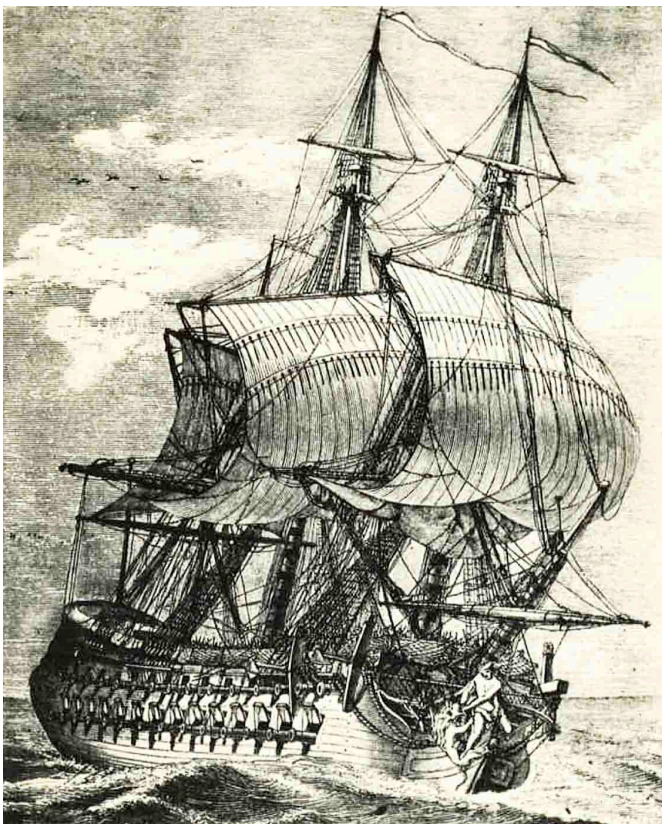
In the last two chapters I discussed billon and John Law **ODEC.** In this Chapter I will cover the Le Chameau issues the last of the **ODEC**.

Le Chameau
A young French naval architect, Blaise Ollivier, in the early 1700s had an idea for a fast transport ship big enough to carry lots of cargo but with enough cannon to fight pirates. Named *Le Chameau*, or simply *Chameau* (camel), the French soon built it in 1717. The Dutch first used the term flute to mean a warship adapted to carry cargo, but with reduced armament. French navy types used "en flûte" for a ship adapted to carry more cargo and less armament. "En guerre", meant a ship armed for war.

Le Chameau made several voyages between France and North America, typically arriving in Quebec. In 1722 the French government sent 20,000 livres of silver and 20,000 lives of nine denier pieces (534,000 coins) to retire card money used to pay troops. The silver circulated, but the unpopular copper lingered unused in a warehouse. I dealt with these in chapter 8. They later became Louisiana coppers.

In 1725 the French Navy appointed Lt. Jean-Charles Percheron de Saint-James to command Le Chameau for her next voyage. It would be a fateful one!

The ship had three masts, weighed 600 tons and had five decks. She was 133 feet long, 31 feet wide and 15 feet in draft. She needed 100 crew. On this occasion she carried 216 passengers, including the new Intendant for Nouvelle France (Canada) Guillaume de Chazel. They also carried the Governor-Elect of Three Rivers (i.e. Cape Bretton) and 52 dignitaries and merchants.



Le Chameau. Courtesy of Parke-Bernet Galleries Auction Catalogue Dec. 1971

The French used two colonial rulers, the Intendant directed civil matters, and the Governor directed military matters.

The ship also carried textiles for French infantry uniforms, livestock, poultry, gunpowder, ammunition, spices, silverware, trade and commercial goods; and specie to pay soldiers valued at 82,010 livres. Some sources say this included 27,258 livres worth of textiles, i.e. 54,752 livres specie. This is wrong - salvors later recovered more than that.

Sovereign Exploration Associates International (SEAI), who owned a subsidiary Artifact Recovery and Conservation (ARC) said in 2005 the French sent around 1.5 million livres total, still unrecovered. ARC received title of claim to CBNS-1, a site which included Le Chameau and other wrecks. CALI Holdings bought out SEAI in 2005. In 2010 Canada repealed the Treasure Trove Act, making this title valueless.

The wreck of Le Chameau
Le Chameau left La Rochelle in France in early July 1725 (see the map above). Situated on France's west coast, La Rochelle had a great naval shipyard, and a mint.

La Rochelle location. Courtesy mapcarta.com

After six weeks at sea, on the night of August 25th/26th *Le Chameau* met a nasty storm. She battled the winds and currents for five hours then smashed into the Chameau reef just the below the surface of the waves. A tiny projection called Chameau rock stuck out of one end of the reef (see map on page 136 of "grid area" where the reef stood).

Split in two, she sank, 4,000 feet offshore and 12 miles east of Fortress Louisbourg, Nova Scotia. All hands died (316 people), including Guillaume de Chazel, the new "intended Intendant." One hundred and eighty bodies washed up on shore. Locals had the gruesome task of burying them in a mass grave.

Site of Le Chameau wreck. Courtesy Mapcarta.com

Governor de Mezy of Nouvelle France wrote to then Intendant Michel Begon, asking for a diver. He contracted with a Capt. Pierre Morpain, a privateer, to recover the coins at a fee of 33%. Two divers appeared; the first, Antoine Frustier, nicknamed "sent-le-vent" (smell the wind) and the second, Pierre Poittevin, nicknamed "La Tempête" (the storm). What a coincidence that 240 years later the salvor, Alex Storm had the same name!

Morpain bought a sloop to reconnoiter that July. But as soon as he got it some Englishmen stole it! Bad weather, bureaucracy or laziness postponed all diving efforts for over a year.

In their second small boat, Morpain rowed a zigzag course in September 1726, along Chameau Reef towing a grappling hook. Whenever it caught on anything, the divers (protected by a thick layer of animal grease) dove into the frigid waters to look.

Using a rope as a guide, they located cannons and anchors, but no mother lode. The Parke Bernet write up (more about this later) said they salvaged only 3,080 livres. Another 3,000 livres had already washed up on the beach.

In 1914 another diver saw coins there while exploring a 1,023-ton steamer wreck named Capella. But he later drowned in a boating accident. In the late 1920s a hard-hat diver looked, but found only *Le Chameau's* upper deck guns. Fishermen continued to tell treasure tales over the years, but no one found anything big.

Alex Storm the salvor

Born in Java, Indonesia of Dutch parents, Alex Storm (1937–2018) would become a famous salvor. Before the Japanese invaded Java during the Second World War (1939–1945), Alex's father converted their savings into silver and gold and buried it at the bottom of their garden in Java. This made Alex appreciate the value of bullion.

The Japanese imprisoned Alex and his family in brutal internment camps. After the war Alex's family retrieved their buried treasure. For seven years they tried to settle in Java, but political bloodshed persuaded his father he had to return to his native Holland.

Educationally behind because of his time in concentration camps, Alex already preferred the sea to academe. By the age of 18 he had become an expert fish diver. Then in 1955 he bought the latest thing: scuba gear! Jacques Cousteau and Emile Gagnan invented it in 1942, though the first production aqualung did not appear until 1943.

Alex left home aged 18, to join another sailor he met, who owned a boat in Marseilles. For 17 months they sailed around, diving for scrap metal from old vessels. All the while, Alex was honing his scuba diving skills.

In 1957 he returned to Holland. His parents were ecstatic! Alex was not — the Dutch conscripted him into the army for 12 months! After that he spent another 18 months in a technical school, learning steel construction and draftsmanship.

Influenced by a friend, he immigrated to Canada in 1959. At first, he lived in Toronto, which he hated. The next year he moved to Louisbourg, Nova Scotia. There he integrated well into the maritime community. For the first time he heard of Le Chameau. By 1961 he became obsessed with the wreck and determined he would learn all he could about it.

That same year he joined a fishing trawler, *Marion Kent*, owned and skippered by Manuel Sequeira. Alex persuaded him to dive for salvage after they laid their nets every morning. He offered cannons they salvaged to an important local project, the Louisbourg Fortress Reconstruction Project (LFRP). But LFRP refused them, saying they were too corroded.

Louisbourg is the site of one of the largest and most expensive forts in history, built by the French between 1720 and 1740.

British colonists from New England captured it in 1745. But the British returned it to the French in the 1748 Treaty of Aix-la-Chapelle (much to the chagrin of New England colonists who lost hundreds of men taking it). In return, the French gave Madras, India to the British.

The British captured Fort Louisbourg again in 1758 during the Seven Year's War and had had their engineers destroy it.

A pivotal event then occurred in Alex's life. He got a job with LFRP as a draftsman. At the same time, he continued salvaging using *Marion Kent* on weekends. One day the crew of a competing treasure salvage boat, *Orbit*, asked him to join them. He signed a partnership agreement with the five of them. Alex got 20% of anything found; the other five got 16% each.

Alex found the Chameau Rock area treacherous: he even had to wedge a crowbar into the ocean floor to hold on to, because the currents were so swift. Even in the summer the water never warmed over 50 degrees Fahrenheit, and underwater visibility was poor.

After Alex joined LFRP, they sent divers to explore nine shipwrecked warships from the 1700s in Louisbourg harbor. He gladly joined in the diving.

During this period, he met LFRP's underwater archeologist who told him everything there was to know about Le Chameau. Nothing like being in the right place at the right time!

Alex then met Dave MacEachern, a surveyor for LFRP, also a keen scuba diver. But Dave lived half an hour's ride away from Alex in a town called Sydney. To make matters even worse, Dave got married in 1962. Not unexpectedly, Dave wanted to spend time with his new wife rather than with Alex!

Nobody could call the diving season in Louisbourg anything but "short"! For the high season – the month of August 1962 - the *Orbit* crew assembled just three times for a dive! Then they gave up, saying they no longer had any interest in "this idiotic venture." Alex repeatedly pushed them to go out together. But they had lost interest. At this juncture Alex determined to go it alone and bought his own boat.

Again in 1963 Alex asked the *Orbit* crew to dive with him. But again, they were not interested; they had even abandoned their boat! So, Alex fixed up his own boat *Marilyn B II.* He had only taken it out once in early 1962. But he knew without diving partners he could not dive from his own boat.

Then in 1964 something very important happened. He married his girlfriend Emily Lawrence. She knew she could become a diver's widow, but she fully supported Alex's dreams of salvaging Le Chameau.

That same year he met Harvey Macleod, a marine engine mechanic and a sailor. Alex was getting serious. He proposed a partnership with MacLeod and MacEachern with this split:

- Government 10%
- Alex Storm 40%
- David MacEachern 30%
- Harvey MacLeod 20% plus 50% ownership of boat.

They prepared to dive every weekend for three years during the short summer diving season. In January 1965 they acquired a license under the Canada Treasure Trove Act.

Alex discovered that, according to international salvage law, he could take ownership of Le Chameau treasure if he salvaged it. He then wrote to the Director of the Paris Navy Museum for details. The Director wrote back giving details of its size and tonnage. She had 20 eight-pounder cannons, 22 six-pounders, and 6 four-pounders. Unfortunately, the museum had no drawings or plans.

Alex then got copies of Captain Morpain's drawings from 1726 including very detailed information of what washed up where. Bodies had littered Kelpy Cove (see opposite).

The tide there runs twice a day, east to west then west to east over Chameau reef, 20 to 90 feet under the water. Only a small rock protrudes at one end — Chameau Rock. The water is frigid: 32 to 50 degrees Fahrenheit year-round.

Alex noted the pattern of disgorged cannons, cannon balls, lead shot etc. was in an almost straight line from east-southeast to west-northwest over the reef. So, he configured a grid where he reckoned the treasure spilled. His grid measured 4,000 feet by 400 feet over the reef, though the area he mapped out in his book *Canada's Treasure Hunt* shows a grid of only 2,000 feet by 250 feet.

The team experimented with several ways of marking a grid on the reef floor. They were all keen Molson beer drinkers, and they found that large used Molson bottles, painted yellow on the inside then filled with cement and painted with a black number on the outside, worked particularly well! And they never ran short of Molson beer bottles!

Cape Breton Island is on the northern tip of Nova Scotia. Its southern coast runs northeast. Louisbourg bay, where Alex lived, is six miles southwest of Little Lorraine harbor, a much more convenient departure point to run his boat only four miles to Chameau Rock, which took only 40 minutes each way by boat.

Map of Kelpy Cove. Chameau reef is between it and Portnova Islands (in "O' of ROCK). Alex lived in Louisbourg, & kept his boat at Little Lorraine

They used a water glass, which is a box with a glass bottom, to see the water below. This worked well for depths up to 25 feet, as long as the water was clear. It was useless for deeper or cloudier water. But it took forever to search the grid.

They then hit upon using an underwater tow frame made of two bed ends welded together at right angles. They towed this with two ropes behind the boat with the diver sitting on it, enabling quicker close-up inspection. Alex said he had a secret box that hung off the bedframe, perhaps a bright directional light.

By September they had searched the grid (on the map next page) and the trail ended. So, they searched off Woody Point, where the east-southeast to west-northwest line intersected the coast.

Again, they came up empty-handed, so they searched the line between the grid and the coast. There they saw more cannons, suggesting the ship had travelled even further along the reef, disgorging its contents.

Map of grid area, Kelpy Cove and Woody Point

On Sunday September 19th, 1965 they hit the mother lode. They saw coins between the grid area and Woody Point (see above), at a depth of 60 feet. Anxiously, they filled their canvas bags with coins. They found not only silver but gold coins. Alex had found no records that France had sent any gold, so this was a thrilling surprise.

They made a mad rush salvaging before people found out. At first, they stored the coins under Alex's bed. Later they transferred them to a bank in Sydney, where their numismatist could examine them safely. On Monday October 18th, they made their final dive, after which they covered their tracks, figuring on returning the next year.

For two weeks, Alex's wife, Emily, kept watch whenever they washed, cleaned and counted the coins and other artifacts. They did not "conserve" coins. Cleaning methods were primitive then. They worried no end that someone would discover them because the coins reeked to high heaven.

Alex only referred to the coins as "livres" rather than Mirlitons or ecus.

They made an ill-fated publicity expedition, taking with them a third of their coins for a trip on *Marilyn B II*. Alex asked Ambrose MacNeil, the chief photographer for LFRP, to come along too. But in their search for publicity, they almost lost the boat, themselves, and the coins as well!

By now Provincial authorities, the LFRP photographer, the wives and children of three salvors, the Sydney numismatist and Sydney Bank all knew about their trove. The secret was becoming difficult to keep.

After eight months of secrecy, in April 1966, experts announced they had salvaged coins worth $700,000 ($6 million today). Within 24 hours, television stations started a TV series, which saturated the Eastern seaboard and had world rights. All three families were ecstatic, though after a few days of incessant calls, the thrill quickly dissipated!

Then the bomb hit. On April 9th, Alex's former partners decided they wanted a piece of the action too. The partners were: Hyman Goldberg and Robert MacDonald, merchants; Ronald Blundon, a mechanic; and Willard Dillon, a mariner. Because of the suit, authorities impounded the treasure. Bummer!

The *Orbit* documents even said they got a Nova Scotia Treasure Trove license for Le Chameau. It seems wrong that the authorities granted two different salvor teams a license for the same wreck. The suit was big news.

Alex hired a pugnacious Halifax QC (Queen's Councilor, a top-of-the-line trial attorney).

Although the Nova Scotia trial ended in December 1966, the Supreme Court Justice waited a nerve-racking 12 months to hand down his 51-page decision. The result: *Orbit* got 25% of the treasure! Alex felt bitter, not only at the sponging Orbit crew but also at the judicial system.

He wrote a book about the treasure hunt called *Canada's Treasure Hunt.* It took another seven years before their case reached Canada's Supreme Court. Unfortunately, the Court upheld the original decision, awarding 25% of the treasure to the *Orbit* crew.

Early reports said Alex and his crew salvaged 4,000 silver (16,000 livres) and 500 gold coins (13,500 livres) i.e. 29,500 livres. An Internet blog commented most of the coins remained unrecovered. The French sent 82,010 livres, so that gelled with blog assessment. More about these numbers later.

Alex and his partners consigned their coins and other artifacts to Parke-Bernet Galleries, who auctioned them off in December 1971.

I have examined the auction catalogue. They sold 495 Louis d'Ors, 7,816 ecus, 58 ounces of clumped silver coins and two sixth ecus. They realized $202,560 before commission. The most valuable item in the auction was a 1.8 carat emerald ring set in gold which brought $4,750 (today worth $30,000 with inflation) and a Chevalier's Cross of the Order of St. Louis which brought $3,000 (today worth $19,000).

Harvey left, Dave in middle and Alex right. Courtesy of Maclean's magazine June 18th, 1966 issue. https://archive.macleans.ca/issue/19660618

Daniel Sedwick, a treasure coin expert, said more salvors examined the wreck around 2004 and identified rare double Louis d'ors from it. StacksBowers auctioned an NGC AU 53 double Louis d'or dated 1724A in 2018. They talked about Le Chameau but did not say it came from Le Chameau. NGC also made no mention of Le Chameau. The piece never met the reserve of $9,500. In November 2019 Daniel Frank Sedwick auctioned a second Le Chameau double Louis d'Or, this time a 1723A shown in the plates ahead.

About 10,000 ships have sunk off Nova Scotia since the 1500s. In 2010 the Canadian New Democratic Party repealed the Nova Scotia Treasure Trove Act, touting how it would stop salvaging, "to preserve and protect Nova Scotia's underwater cultural and heritage resources". The Special Places Protection Act instead allows the government to seize any object they desire.

Licensed salvors like CALI and Storm no longer had any incentive to salvage. The Treasure Trove Act repeal had the opposite effect. Pirate divers are now having a field day! As it is illegal, they have no incentive to report findings. Valuable objects now sit in basements or sell on eBay without documentation of their heritage.

The Parke-Bernet catalogue description stated: "Discovered, Recovered and Sold by Order of Alex Storm and Associates". Assuming an equal distribution of coins, if Alex's crew got 65% of the treasure (the Canadian government got 10% and the *Orbit* crew got 25%), and if Alex's crew consigned all their coins to the auction, this would put the total coins salvaged at around 760 gold (20,520 livres) and 12,000 Ecus (48,000 livres), totaling 68,520 livres.

The French sent 82,010 livres in 1725. 3,000 livres washed up on the beach and Morpain recovered another 3,080 lives. This left 75,930 livres on the ocean floor. If these figures are correct, Alex salvaged 90% of the coins. However, SEAI said in 2005 that the French sent 1.5 million livres in total!

Although *Orbit*'s crew likely took their 25% mainly as coins, the Government may have taken their 10% more as artifacts and cannons than coins, so these calculations could be off.

In 1977 Alex opened a museum in Louisbourg with his wife Emily, which has now closed. Some artifacts are on display at the Louisbourg Maritime Museum, and others at the Maritime Museum of the Atlantic in Halifax. Alex and Emily had five children. Emily, died in 2011, and Alex died in 2018.

The Coins

French authorities intended that these coins circulate in Nouvelle France, as they said at the time, they sent 82,010 livres with the ship. And we know from their salvage what the coins were. Although they would have circulated primarily in the Quebec area, they would also have circulated in La Louisianne, now part of the US.

Most of the silver coins were écus aux 8L, at 11/12 fine (91.67%) which the Cataloger Duplessy says weighs 23.59 grams.

Nicholas Roettiers engraved the dies. 1725 H (H is for La Rochelle) ecus comprised 80% of the ecus from this shipwreck (not unexpected, as this is where the ship sailed from in 1725). 1724 ecus and other mint marks comprised the remaining 20%. At the time the French Government valued the écus at four

livres. They produced at least 26 types of Louis XIV and XV écus which they valued at 3 to 9 livres.

The obverses show Louis XV as a child with the legend LVD XV DG FR ET NAV REX (Louis XV by the grace of God, King of France and Navarre).

1725 H 8Ls Silver Ecu, harshly cleaned

The reverses show four crowned fleurs-de-lys with addorsed L's in the angles with the legend SIT NOMEN DOM (mintmark) BENEDICT (date) (blessed be the name of the Lord). They have a lettered edge: DOMINE AVVM FAC REGEM (God save the King), though this is illegible on most of the coins salvaged.

Another very rare silver type has a crowned shield with three fleurs-de-lys instead of 8 L's. All the silver is harshly cleaned and shows sea corrosion. A few half-ecus from the wreck are known.

We call the gold coins Louis d'or or mirlitons, also designed by Nicholas Roettiers. Mirliton is French for eunuch flute, a kazoo-like instrument. Breen says the name may allude to a popular song ridiculing Cardinal Dubois, who became Louis XV's First Minister in 1723. Mirlitons were also pear-shaped green squashes which grew in New Orleans.

They valued the gold mirlitons at 27 livres. They are 11/12 fine i.e. 22 carats (91.67%). All operational French Mints struck them, which Breen lists as "Breen 299" to "Breen 384" (1723–1725). These shipwreck Mirlitons are often stained and show light circulation.

The Louis d'ors are of two types:

- Type I palmes courtes (short palm leaves)
- Type II grandes palmes (long palm leaves and other design changes

The first coin is opposite, a 1724 K Louis d'or, the commonest Louis d'or found from *Le Chameau*. This variety has an annulet on the obverse below the hair, and a plume engraver's mark on the reverse above the crown, described in only two of the Chameau 1724 coins. This is the better of the two and was lot #353 in the 1971 Parke Bernet auction, who graded it very fine. It auctioned for $350 in 1971.

Following this is the rare double Louis d'Or.

Only about 200 *Le Chameau* écus are in collectible condition. The rest are in clumps or unidentifiable. The 1725 H (La Rochelle) écu, the commonest collectible écu, is shown after the double Louis d'or. Although harshly cleaned it shows more detail than most.

The second écu is a bust 1724 H (La Rochelle). Of the 200 identifiable silver coins in the Parke Bernet sale, only two are bust types like this.

References

Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins.* 1988 Doubleday, NY.
Storm, A. and Shaw.B., *Canada's Treasure Hunt*. Greywood Publishing Ltd., Winnipeg, Canada. 1967
https://en.wikipedia.org/wiki/French_ship_Chameau
https://mapcarta.com/24326910
https://archive.macleans.ca/issue/19660618
https://en.wikipedia.org/wiki/Fortress_of_Louisbourg
https://en.wikipedia.org/wiki/Treaty_of_Aix-la-Chapelle_(1748)
https://www.coinbooks.org/v21/esylum_v21n34a25.html
https://en.wikipedia.org/wiki/French_ship_Chameau
https://www.nytimes.com/1971/12/12/archives/coins-in-sea-since-1725-sold-here.html
https://www.nytimes.com/2018/08/23/obituaries/alex-storm-dead.html?fbclid=IwAR33b_0_9Wi6Pza5T9mREqScwWgdao7bG1QwZRjnyffi7DmCKoKO16Z85R8
https://canadiancoinblog.wordpress.com/2013/04/15/the-wreck-of-le-chameau/
https://nationalpost.com/news/canada/looters-likely-scouring-sunken-treasures-off-nova-scotia-experts-warn
https://www.cbc.ca/news/canada/nova-scotia/looters-sunken-treasure-nova-scotia-1.5090126
http://www.treasurenet.com/forums/shipwrecks/13107-le-chameau-1725-rest-loot-sovereign-seai-report.html

784

LE CHAMEAU LOUIS D'OR 1724 K (BORDEAUX). BREEN -327; 23MM, 6.52 GRAMS AU

2930

Le Chameau Double Louis d'Or. 1723-A (Paris). Dupl-1637; 28mm, 13.00 Grams BU

669

LE CHAMEAU ECU 1725 H (LA ROCHELLE). BREEN-385; DUP 1670; 39MM, 21.53 GRAMS F

734

Le Chameau Ecu 1724 H (La Rochelle). Breen-Unl; Dup 1665; 39mm, 21.26 grams F

CHAPTER THIRTEEN
LOCAL COLONIAL TOKENS — MASSACHUSETTS SILVER

Local colonial tokens include: Massachusetts silver, Granby coppers and Chalmers and Barry silver. A token is a coin with less bullion value than its denomination or a coin not issued by a government. This chapter is on: **MASSACHUSETTS SILVER**

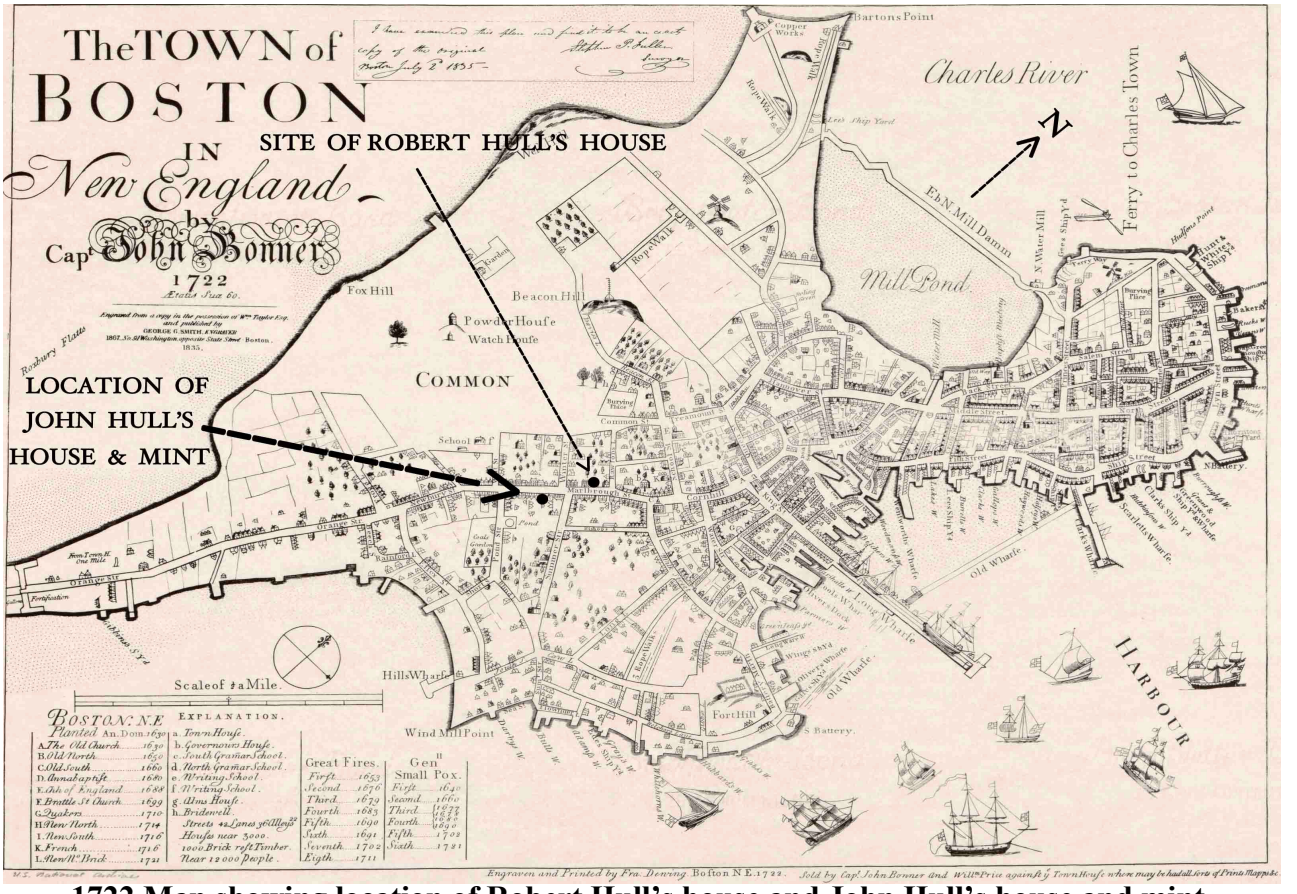
When talking about Boston and its environs, one needs some familiarity with its colonial geography, which was nothing like it is today because they have reclaimed so much land from the water.

This map shows Boston and its environs, after 1775, really a complex group of unconnected islands in a bay. Boston was a peninsula with a narrow isthmus.

You can trace the following locations of events on this map:

- The Hulls arrived in Salem in 1635 and walked 20 miles to Charlestown (both on the map).
- Roger Conant led Reverend White's colony in Glocester, Cape Ann in 1620 then transferred to Salem.
- Rev. White's New England Company land patent stretched 40 miles from the Merrimack River to Boston.

Map of Boston in 1775. Courtesy Library of Congress. Totally different from modern coastline.



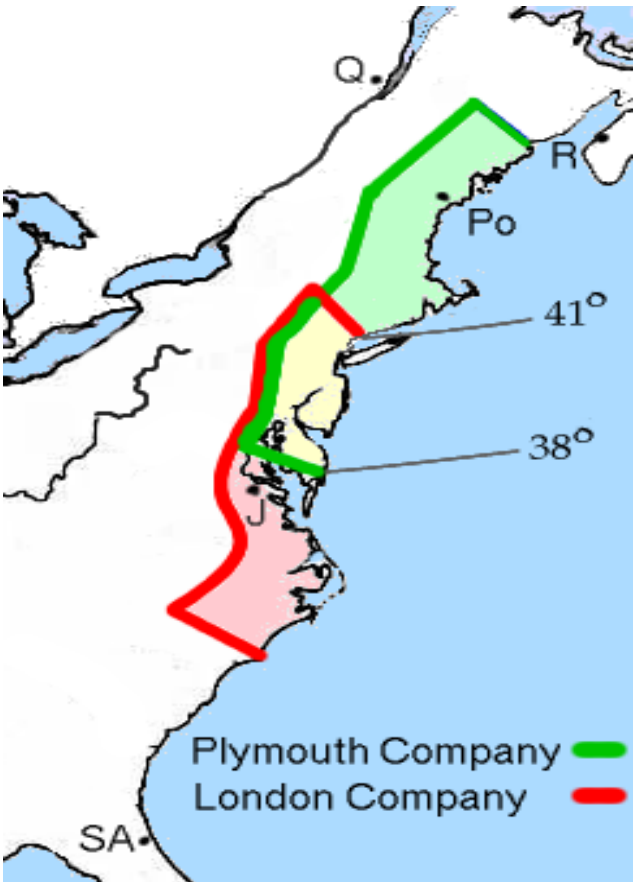
1722 Map showing location of Robert Hull's house and John Hull's house and mint.
Marlborough Street became High Street and Washington Street.
Summer Street became Mill Street. Pond Street became Bedford Street.

TIMELINE OF MASSACHUSETTS BAY

Rather than telling several stories in sequence I will present a timeline to tell the stories of John Hull (first mint master of Massachusetts Bay Colony), of the colony itself, and of the mint.

In 1524 the Italian explorer Giovanni da Verrazano claimed what is now New England for King Francis I of France. Almost a century passed. Then in 1602 Captain Bartholomew Gosnold, an English barrister, and privateer, led the first European expedition to Cape Cod (which he named). Gosnold was also instrumental in founding Jamestown, and the London Company (see below).

James I granted the First Charter of Virginia, also called the Charter of 1606. These were two American land grants in the north (Plymouth Company) and in the south (London Company) which overlapped. In the north, settlers came to what is now Newfoundland and Nova Scotia.



Overlapping Plymouth and London Company Land Grants of 1606.

(J is Jamestown, Po is Popham settlement, SA is Saint Augustine, Q is Quebec, R is Port Royal.)

The Plymouth Pilgrims sailed for Virginia in 1620, the site of their land grant. But due to a navigational error landed up on Cape Cod, and later in Plymouth (now Massachusetts). There were 102 settlers. They had no patent (land-grant) thus no right to own land there. They were outside the area of their charter, so had no right to govern themselves either.

Also, in 1620 Rev. John White from Dorchester, England tried to organize a fishing industry with a colony on Cape Ann (present-day Massachusetts). Roger Conant, the colony leader, transferred his colony to Salem and got Rev. White to send over more Puritans. In 1628 John Endecott took over leadership of Salem (called Naumkeag before 1629).

Rev. White organized the "New England Company" (initially called the "Dorchester Company"), with London investors. They got a patent for land between the Merrimack River and Boston (about 40 miles apart, see first map on page 143). Prosperous London Puritans founded a different "New England Company" in 1649 to convert New England Native Americans to Christianity.

Sir Ferdinando Gorges and Captain John Mason got a patent in 1620 called the "Council of Affairs of New England" to settle New Hampshire and Maine. Over the next eight years several other settlements started but failed.

In 1624 Robert and Elizabeth Hull became proud parents of a new baby boy, John. Little did they know he would become the leading merchant of New England. The name "Hull" probably derives from Hill. Three centuries before, Edward III (1327–1377) introduced cloth workers into England from the Netherlands, and many Flemish weavers settled in Market Harborough, England, where the Hulls lived.

In 1629 the Massachusetts Bay Company (MBC) got a royal charter (allowing self-rule) for Puritans. Puritans, persecuted by Charles I (1625–1649), were protestants who wanted to purify the Church of England by ridding it of Roman Catholic practices. By contrast the Plymouth Pilgrims were separatists who wanted to leave the Church of England.

MBC took over the New England Company in Salem in 1630. MBC had a Governor (John Winthrop was the first), a Deputy Governor, and 18 Assistants. They held monthly courts, and four General Assemblies a year for everybody. Before MBC settled the Boston area, a second expedition of 250 Puritans sailed for the New England Company settlement in Salem, 20 miles north of Boston.

The "big event" took place in 1630! A thousand settlers sailed to MBC in eleven ships. They bought their charter (permission to govern themselves) with them to the colony. After the big event was an even bigger event! The "great migration" from 1630 to 1640: 298 ships brought 21,000 immigrants to MBC.

The First Church of Boston was the only church from 1630 to 1650. All Puritans had to toe the church's ideological line. Many Puritan immigrants were upper-middle class, wealthy, and sometime even titled.

The Puritans did well because of shortages of goods for the ever-increasing numbers of immigrants. But in 1640 that all came to a screeching stop, when a glut of goods forced down prices. Early stockholders of MBC paid £50 and received 200 acres. People who came later received only 50 acres.

Religious controversy quickly came to roost. Puritans passed sumptuary laws which spelled out what the colony allowed them to wear, eat and drink. Only ministers could wear long hair and finery. Puritans whipped, banished or imprisoned people who had different religious views. They did not tolerate adult baptism.

Pilgrims going to church. Early Puritans dressed the same often wearing black but soon added colors.

Because of friction with the Puritans, Roger Williams (1603–1683) moved to Plymouth in 1631 where he preached. In 1636 Puritans expelled him from MBC for spreading "new and dangerous ideas". Williams was a Puritan minister, but unluckily for him he advocated religious freedom, separation of church and state, and fair dealings with Native Americans.

Educated at Cambridge University, England, like most other MBC religious leaders, Roger Williams also spoke six languages. He befriended the Narraganset Indians and published the first book on Native American language. It was called *A Key into the Language of America* (a phrase book) which became very popular. Williams was also one of the first abolitionists. After MBC expelled him in 1636, he founded Providence Plantations (they did not call it Rhode Island then), and the first Baptist Church in America. For Puritans adult baptism was sacrilegious.

William Laud became Archbishop of Canterbury in 1633. He persecuted Puritans, causing even more to immigrate to New England. Many also moved for the economic rather than the religious opportunity, and were willing to put up with religious indoctrination. Laud also pushed the influential Rev. John Cotton to immigrate to MBC. Cotton, like Gov. Winthrop also studied at Cambridge University in England.

The colony became economically successful. Soon specialist businesses appeared. John Coggan opened the first general merchandise shop in 1634. The Massachusetts Bay Colony General Court made their first financial dictum in 1635/1634: they declared British farthing tokens no longer acceptable as money.

Charles I (1625- 1649) patent farthing #1843
Crown / rose (British) CC 302, 14mm, 0.81gms.

Patent Irish farthing CC 292, 16mm, 0.37 gms. #1844

Again, the Old Style calendar changed to the New Style calendar in 1752. Before that, the year began on March 25th. After that, the year began on January 1st. Thus, February 1634 was what **we** would describe as February 1635 — thus we label it 1635/1634, or 1635/4.

In the middle of the "great migration" in 1635, Robert and Elizabeth Hull sailed from Bristol, which was then the number two English port especially for the triangular trade (UK ➔ Africa ➔ Barbados ➔UK). John Hull was 11. They sailed for seven weeks in the *George,* a 300-ton ship, 90' long and 30' in beam. The ship required 30 sailors and housed 50+ passengers, horses, cows, sheep, etc.

Each family took their own food for the journey. H.F. Clarke in his book, *"John Hull"* says families took limes or prunes to prevent scurvy in 1635. Whether this is accurate I do not know. Even in the 1740s, Commodore Anson led 2,000 men to raid Spanish holdings in the Pacific and lost 1,300 to illness - mostly scurvy. Although James Lind showed that lemons and oranges cured scurvy in 1747, the Admiralty did not introduce Vitamin C rich foods into the Royal Navy until 1795.

However, the North Atlantic crossing was around 8 weeks. Assuming families brought fresh fruit and vegetables, these might take a few weeks to use up. It takes about four weeks of a total lack of Vitamin C to develop scurvy. People did develop scurvy, but it was less common for shorter voyages like this. Officers rarely got scurvy, presumably because of wine, port and better food. People later called English sailors "Limeys" because they often smelled of limes which they ate in the 1800s to prevent scurvy.

The Hulls saw whales and porpoises. Their ship got caught on the sands of Cape Sable for one or two days. They arrived in Salem, then walked over 20 miles to Charlestown. Governor Winthrop had made the same trek on foot from Salem where he had arrived five years earlier.

MBC settled in the Boston area, which included the peninsulas of Charlestown and Boston, and the towns of Newtown, Roxbury and Dorchester (see top map on page 144). Initially they called the peninsula of Boston tri-mountain as it had three clustered hills. MBC allotted Robert Hull land on Great Street in Boston (which became Newbury St., then Washington St.). The bottom map shows Robert's and John's house locations. John went to the first Public School, now called the Boston Public Latin School.

A year after the Hulls arrived the General Court founded a College with a £400 grant. Two years later John Harvard died and left his library of 400 books, half of his £1,700 estate, and his name to the College.

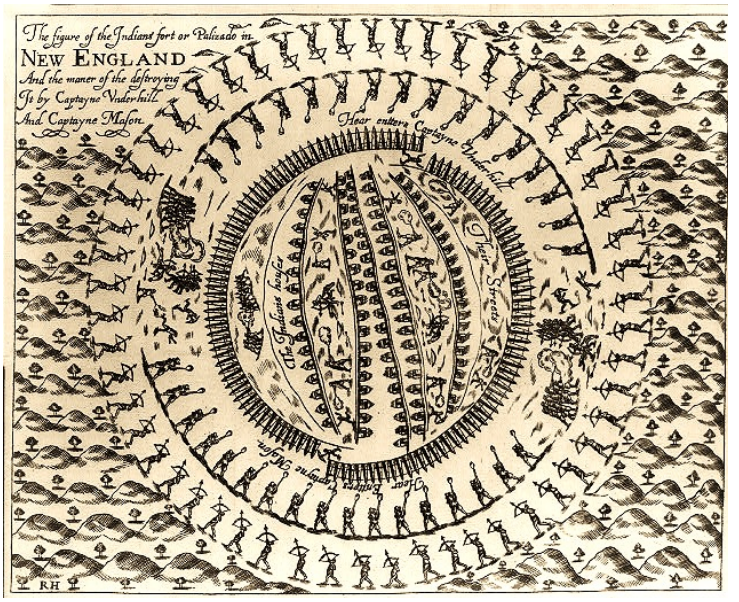
In 1637 the Massachusetts General Court pegged wampum at six beads to a penny. In 1640 they changed this to four beads to a penny for white wampum and two beads to a penny for black or blue wampum. The next year they changed it back to six beads to a penny. Wampum exchange rates in neighboring states varied.

Wampum 4 by 7 mm beads likely made by Dutch-allied Indians 1640 – 1660 from quahogs. From Dann Site near Honeoye Falls, New York. #1601

Settlers encroached on Native American lands. This led to Native American attacks.

Capt. John Mason, who commanded the Connecticut River military, defended their settlements from increasing attacks from the Pequots in 1636 and 1637. He asked for support from MBC who dispatched Capt. John Underhill with 20 soldiers. Mason sailed with Underhill, and their 77 to 90 musketeers and 70 friendly Mohegans. They arrived at Narragansett Bay, where they added 200 friendly Narragansett and Niantic Indians.

Two hours before dawn on May 26th, 1637, they massacred the Pequot village in Mystic, near present-day Groton, Connecticut, burning their houses, and firing on them as they escaped. English settlers then lived in peace for the next 40 years.



Contemporary drawing of Pequot Massacre

Subsequently the colony formed the Ancient and Honorable Artillery Company in 1638, which added cannon to the militia's firepower. MBC expected all men from age 16 to 60 to do military service.

A second religious controversy arose in 1637. The Massachusetts General Court disarmed, disenfranchised and exiled Antinomians, including one Ann Hutchinson. Antinomians believed that internal principles flowing from belief motivated obedience to religious laws (rather than being told what to do). Robert Hull followed her teachings.

The MBC disenfranchised Robert of his freeman status they had given him in 1635. It is difficult today to believe that such small variances in religious belief could motivate Puritans to such excesses.

Fortunately, MBC later reinstated Robert Hull when he again toed the religious line. But Robert's son John faithfully followed MBC religious teachings, becoming deeply devout.

As the Colony grew, small new industries appeared. At first, homeowners used oiled paper for windows, but in 1639 the first glassworks in Salem made window glass. The same year Hezekiah Usher opened the first printing press and bookshop.

When immigration ceased in 1640 an economic crisis developed lasting about a year. The sudden halt of population expansion produced a glut of goods. Prices dropped to 30 – 50% of their previous levels. The lack of new labor caused wages to increase.

The colony also recognized the importance of fisheries, and started exporting salted cod, wood and fur. They started ship building. Subsequently, commerce increased with the West Indies and Europe with attendant influxes of foreign silver.

During Charles I's reign (1625 – 1649) England had no real colonial policy, though in 1640 the crown requested MBC's charter be returned. Why? Charles I may have given MBC its charter to stem conflict with Puritans. Alternatively, he may have signed it unknowingly (someone may have bribed a courtier for the charter). Either of these might explain why Charles I wanted his charter back. The General Court did not respond. The same year it also granted Harvard College the income from ferry fares between the Boston and Charlestown peninsulas (see top of page 144).

By 1641 Boston was by far the most important American port including many merchants. John Hull would become the most prominent of them. Merchants imported a surprising amount of what we might today call frippery — colored clothes, hats, fans, whistles, rugs, curtains, valences, candlesticks, spices, etc.

Puritans initially wore black and were austere and parsimonious. But their economic success bred luxury. Hull had a cousin, Edward, in England who bought and sent merchandise to him. Edward made 2% on the purchase, and 2% on the sale.

The first Boston-built ship *"Trial",* weighing 160–200 tons, made its successful maiden voyage to the West Indies in 1643.

John Hull apprenticed in 1644 aged 20 for six years as a silversmith. The normal period for apprenticeships in England was seven to nine years, and in the colonies four to nine years. John's father, Robert, was a blacksmith. John's half-brother, Robert Storer, was a London apprenticed silversmith.

Robert Sanderson, John's later partner, was a London apprenticed goldsmith who immigrated to MBC who made him a freeman in 1639. An MBC freeman had to be a member of the church, but not in the Plymouth colony. The Plymouth General Court simply had to elect him as freeman. A freeman could not be a slave, indentured servant or woman. MBC had 75% individual settlers, and 25% "freemen". Freemen held stock in the chartered corporation and thus exclusive control of the colony.

I know of no painting of John Hull's likeness.

Charles I stayed in "King's Head" in Market Harborough, Hull's home town in England, in 1645 before the battle of Naseby, fighting for his crown. Eventually Charles would lose his crown, and in 1649, his head.

Two years into his apprenticeship John Hull's mother Elizabeth died. The next year he noted in his diary, "(Governor) John Wint(h)rop married me and my wife Judith". Hull later named Judith Point, Rhode Island, after Judith Quincy, his wife, who was also part of the famous Quincy family. Soon after, John's father, Robert, married Judith's mother, just a year after his first wife had died. The Hulls were moving up in society.

Another important industry arrived in 1648 with the Lynn ironworks. They became a successful commercial enterprise, making ship fittings and cookware.

Saugus Ironworks after restoration ca. 1957 from contemporary publicity pamphlet

They later became the Saugus ironworks owned by Joseph Jenks Sr. They made the steel dies for Hull's coinage. Whether Jenks engraved Hull's dies is another matter.

MBC made John Hull a freeman in 1649, the same year the English beheaded Charles I. Oliver Cromwell took over the English government and appointed a Commission on Trade and America.

Also, that year Governor John Winthrop died. Another event: the Spanish King ordered devaluation of all Potosi, Peru coins. Potosi mint officials had been making low fineness silver coins for years. The scandal broke in 1648. Even outside Potosi in the 1640s, merchants had their suspicions about "Peruvians" as they called them, and often valued them at a lower rate.

In 1650 John Hull finished his silversmith apprenticeship. Many wealthy Puritans, who had been used to luxuries in England needed silversmiths to fashion silver objects for their homes. Business boomed.

Today we may think, who needs silverware? Although a sterling silver cutlery service may now be worth two weeks' wages, in those times it could be worth 6–12 month's wages. So, the family silver was a valuable form of insurance. One troy ounce of plate silver, as they called it (sterling silver plates, drinking vessels and cutlery) was worth 60 pence if you took it to the mint. But they valued one troy ounce of coined silver at 62 pence (i.e. 2 pence seignorage to pay the mint and Crown).

In the colony, the silversmith was close to what a modern banker would be today. Considerable quantities of silver resided in Boston. It was the source of wealth and the silversmith was its arbiter.

In 1651 Cromwell passed the first Navigation Act which restricted colonial trade to English and colonial vessels (i.e. benefitting America). This excluded the Dutch from trade and spurred English privateers to attack Dutch merchant ships, which helped lead to the First Anglo-Dutch War of 1652–1654. This ended with the Treaty of Westminster. (The Second and Third Anglo-Dutch wars took place 1665–1667, and 1672–1674, underscoring international maritime competition between the Netherlands and England.)

During the first war (1652–1654), Hull wrote in his diary he lost two shiploads of masts and other goods worth £120 to the Dutch. Thus, John Hull was already a man of means and in business as a merchant. A laborer at the time may have earned £10 a year. A single shipment of £120 was a lot of money.

The Americas used Spanish silver as their de facto trade coin. After 1497 eight reales pieces weighed 27.07 grams (93.05% fine). In 1642 Spain kept this standard for Spanish American coins, but lowered Spanish domestic coins to 21.77 grams of the same fineness.

They called this 20% lower weight domestic coin, new plate. Hence old plate eight reales were now worth ten reales in Spain. In 1704 the Crown raised Spanish domestic eight reales coins back to 27.07 grams (though now of 90.30% fineness). Spanish American eight reales remained 93.05% fine. This is all rather confusing, especially if you look through the *Krause World Coin Catalogues* only to find that before 1704, they list no weights or fineness!

For centuries, the English used sterling silver (92.5% fine). The term may have derived from the word "Easterling" applied to eastern modern-day Germany (then part of the Hanseatic League). English King John (1199–1216) regulated the silver fineness to the Easterlings own fineness in Germany i.e. 92.5% fine. The silver thus became more workable and robust. Easterlings had an excellent reputation for reliability and honesty. The difference between English 92.5% and Spanish 93.05% purity was minuscule.

The great date arrived! In 1652 the Massachusetts General Court voted to mint their own silver coins. Why?

First, a constant shortage of specie led to cumbersome barter, and inconvenient country pay and money of account.

Second, the constant clipping, shaving and sweating of Spanish silver was inconvenient for Boston merchants. Sweating meant shaking coins in a bag to cull off silver powder. Merchants though could compensate for these activities by weighing coins.

Third, colonists knew Spanish American coins were 93.05% silver. But when people began to suspect "Peruvians" in the late 1640s, and when the Potosi Mint Scandal broke in 1648, merchants could no longer rely on the silver's fineness.

Finally, as with all new countries, there was an unfavorable balance of trade, and a home bank balance seemed like an extra plus.

Previously the Massachusetts General Court had decreed several fixed values, called "current money":

- 1631 Corn: 6 shillings a bushel
- 1634 Beaver skin: 10 shillings. Musket balls: one farthing (perhaps to increase their circulation in the colony, though you did not have to accept over 12 at a time!)
- 1637 wampum (also called wampumpeage or peage) at 6 beads to a penny, and in 1640, 4 white beads to a penny and 2 black or blue beads to a penny, not to exceed 12 pence for any single transaction. In 1649 the limit changed to 40 shillings.

The Court appointed John Hull, our saintly silversmith and flush freeman, as mint-master. Hull chose his friend Robert Sanderson, the London apprenticed goldsmith, as his partner. The partnership lasted over 30 years until Hull died in 1683. Sanderson would outlive him by another 10 years.

The Court ordered sterling silver coins, paying Hull 15 pence per 240 pence struck, plus 4 pence per pound wastage i.e. 19 pence per 240 (7.9%). It sounds like a great deal! English coiners only got 2 pence per 60 (3.3%). But Hull may have had less available tools.

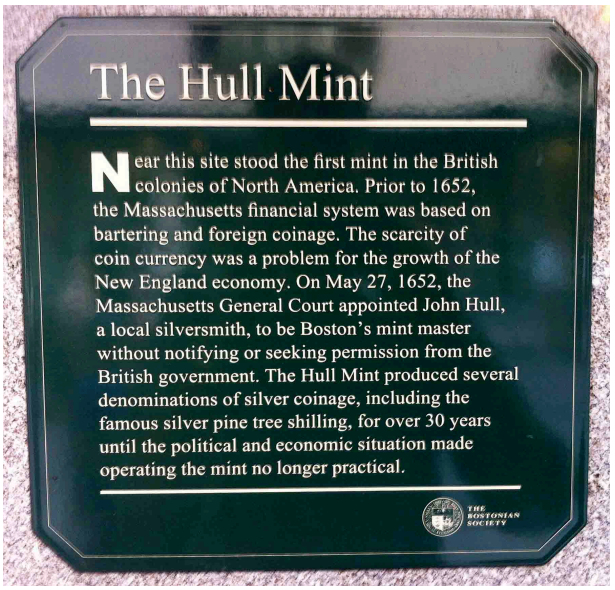
The Court reduced the silver weight by 22.5%, which meant people could not spend it abroad because foreigner would not accept it. Thus, the coins did not leave the country. Brilliant!

Technically, as the coins were underweight, they were tokens. And, had the Crown been around they could have had their heads chopped off! Coinage was a Royal prerogative, on pain of death. But there was no Crown! The interregnum (between the reigns of Charles I and II) lasted from 1649 to 1660. So the story goes, when Charles II returned to the throne Hull simply kept on backdating all his coins to 1652! More about this later!

There were five emissions of Massachusetts silver:

1. **NE silver**. Simple stamps of NE at 12 o'clock and the denomination on the reverse at 6 o'clock (to prevent cross obliteration of the stamps). Denominations 3d, 6d and 12d.
2. **Willow Tree coins**. The dies were crude and they had to hammer the coins several times to strike them up resulting in a confusing patchwork of motifs. Denominations 3d, 6d and 12d.
3. **Oak Tree coins.** Produced on a rocker press, and much better made. An oak tree shilling was my first major colonial purchase from the famed colonial dealer Bob Vlack in 1989, five years after I started collecting coins. Denominations 2d, 3d, 6d and 12d.
4. **Large Planchet Pine Tree coins**. Also produced on a rocker press Denominations 3d, 6d and 12d.
5. **Small Planchet Pine Tree coins.** They minted these with a screw press. Denominations 12d.

The Great Fire of Boston in 1654 burnt many homes. Two years later Boston built first their town hall. It had areas for administration, a marketplace, a meeting place, a jail in the cellar and a Town Crier. The first floor was a covered market measuring 30 by 60 feet. The second floor had two rooms. The Artillery Company used the attic. The building burnt down in 1711. The Old State House replaced it.



Plaque on Macy's Building Boston.
In 2008 the Colonial Coin Collector's Club and the Boston Historical Society unveiled a plaque near the location of Hull's mint. Courtesy of Masscommons.

Aldeburgh Moot Hall in East Anglia, UK. Built in 1500s similar to Boston Town Hall

But religious extremism remained. Between 1656 and 1661 Quakers came to the MBC and criticized Puritans. The Court banished some of them; others returned. So, the Court passed a new law to execute anyone returning from banishment. Indeed, they executed a Quaker in 1659 and another in 1661. Religion was a dangerous business!

It is hard today to accept that religious authorities put people to death for religious differences. The Spanish Inquisition (1478 – 1834) was one of the most famous examples in western society. But even today third world governments do the same. I illustrate this with the following stories that illustrate how religious zealotry may never die.

In 2014 the Sudanese government arrested a pregnant Sudanese lady, Mariam Yahia Ibrahim Ishag for apostasy. (Apostasy means changing to another religion, or rejecting your own religion). She was pregnant at the time. Her father was a Muslim. The government sentenced her to death for apostasy. She claimed she had never changed; she had always followed her mother's Ethiopian Orthodox Christian religion. The prosecution said she should have followed her father's religion and gave her three days to convert to Islam. She refused and sought sanctuary in the US embassy. She now lives in New Hampshire.

This is not an isolated story. Twelve countries (all Islamic) still have a death penalty for apostasy (Afghanistan, Iran, Malaysia, Maldives, Mauritania, Nigeria, Qatar, Saudi Arabia, Somalia, Sudan, United Arab Emirates and Yemen). A thirteenth country, Pakistan, has a death penalty for blasphemy and apostasy.

In 2010 a Pakistani court sentenced a Roman Catholic, Asia Bibi, to death by hanging for blasphemy. Co-farmworkers had asked her to fetch water while harvesting berries. Asia took a drink from the bucket with an old metal cup she found by the well. A neighbor told her that Islam forbade a Christian to drink from the same cup as a Muslim. This was blasphemy.

A Muslim cleric, Maulana Yousaf Qureshi, offered a bounty of 500,000 Pakistani Rupees to anyone who would kill her. The Pakistani minorities minister and the Punjab Governor advocated for her. Masses assassinated both of them. In 2018 the Pakistani Supreme Court acquitted her. The next year they released Asia Bibi from custody for her crimes. She immigrated to Canada, where she now lives.
I tell these stories to illustrate just how life may have been in MBC for religious dissidents. Dangerous! MBC executed people. We look back on colonial times with great romance. But colonial life was not idyllic! It was not just the threat of execution. Shunning, economic isolation, verbal abuse, violence, and whatever bigots could do to make your life a misery was par for the course. John Hull was immune from all that. He was a conformist. He even made notes on sermons! Interestingly, he used a very early form of shorthand called Theophilus Metcalfe's shorthand, introduced in England in 1645.

In 1657 John Hull's wife Judith gave birth to their daughter Hannah. MBC chose Hull as Treasurer of Boston with six other men to look after town affairs. They conducted all town business in the First Church (to which Hull belonged) from 1630 until 1658.

John Hull bought into a land deal called the Pettiquampscut Purchase with four other freemen. This included land today in South Kingston, and Point Judith Neck, all in Rhode Island. A year later Hull bought 1,000 acres from Governor John Endicott, and five years later 500 acres in Braintree.

Hull also raised horses on Cape Cod for New England, Virginia and the West Indies. But the business did poorly. Hull was too distant to manage the details.

He also had timber cut for export as ship masts, hoops and pipe staves for barrels. He exported these in his own ships. He started a lumber mill but chose the wrong partners, the Broughtons. They were inefficient, quarrelling, and drained Hull's money.

In 1659 Jeremiah Dummer (1645–1718), a painter who would become the first American born silversmith, apprenticed aged 14 to John Hull. Hull also accepted Samuel Paddy as an apprentice the same year. The previous year John Sanderson, his partner Robert's son, also apprenticed to Hull, but died of a fever possibly typhoid. Drummer engraved the first Connecticut paper money in 1710.

The General Court met again in 1660 and wanted to pay Hull less. He gave them a gift of £10 instead. This was a lot of money, about a year's wages for a laborer.

So, after Willow tree coinage production stopped, he was making enough coins that it was presumably worth his while. Hull did not have a steam press, factory or hundreds of employees. He only had his apprentices, himself and his partner. They had to melt and refine the silver, hand hammer it into sheets of the correct thickness, cut out planchets, re-melt the left-behind web, hammer the coins with dies, soften steel dies, engrave them then harden the dies. A lot of work!

In 1660 England restored Charles II to the throne. Edward Whalley and William Goffe (both wanted for regicide) fled to Boston. This put MBC in a quandary. MBC hated Charles I's religious intolerance, but realized the danger of harboring regicide defendants. They allowed the men to pass freely for a few months then forced them to leave. The men fled to New Haven. Charles II required MBC to send a search party for them, but they only did this half-heartedly.

Charles II in exile in France 1640 – 1660.

Interestingly, John Cates who built my house in Windham Center, Connecticut, was also wanted for regicide. He left New London, Connecticut, around 1688, then lived in a cave in Hither Place (the old name for Windham Center). He lived there with his Virginian slave, Joe, for a year. News travelled slowly then. After the Glorious Revolution (Protestant Monarchs William and Mary taking over from Catholic James II in 1688), news reached isolated Indian country in 1691 when he built his house, now mine.

To return to our subject, in 1661 the new King Charles II told MBC he objected to them imprisoning his subjects and even more so to executing them for religious reasons. The Massachusetts General Court sent two emissaries to England to meet the new King Charles II, and Hull accompanied them as an advisor. At one meeting Sir Thomas Temple (1614/3–1674), proprietor of Acadia/Nova Scotia, showed the King the oak tree coins the colony had made. The explanation that it represented the Royal Oak (in which Charles I hid to escape Cromwell's Roundheads) somewhat mollified the irate king.

While Hull was in England in 1662, the General Court riskily passed a new coinage act. Thankfully, Charles II reaffirmed the MBC charter, though he required them to allow baptism into the Church of England if desired. That year King Charles II also granted a royal charter to Connecticut.

Forty to forty-five thousand people lived in New England in the 1660s, of which 25,000 lived in Massachusetts. In 1664 Charles II sent four men-of–war with a Royal Commission to investigate the colonies. On board was the Duke of York, King Charles II's brother, who would later become King James II.

The Commission pointed out the General Court's abuse of the royal prerogative of coinage. Further, they pointed out the Colony still did not allow baptism into the Church of England. The King also demanded 200 men to help take over the Dutch colony in Manhattan. The sweetener to the deal was that the King might let the Colony control Dutch New Amsterdam. From 1660 to 1675 the crown remained lenient towards MBC.

The MBC Court dutifully mustered 200 men and passed a law to allow baptism of non-Puritans. After the Duke of York took Manhattan (hence the name New York), the King hoped to induce MBC to elect his Governor in the place of Endecott. Although

Charles II's bait was to allow MBC to take over New Netherland, in 1665 MBC elected their own Richard Bellingham as Governor instead of the crown's candidate, Col. Nicolls.

The tide was changing. The Commissioners then accused MBC of sheltering people guilty of regicide, not replying to the King's letters, sentencing of Quakers, and violating the Navigation Acts. They demanded an inquiry. The Court replied their charter gave them the right to self-government, and that the Commissioners had exceeded their powers.

The king's Commissioners had no better luck in Connecticut. To appease the crown Hull sent a boat load of masts valued at £500, with a freight cost of £1,600. The colonists also sent charitable donations for the Great Fire of London in 1666.

Boston had now become a major port. By 1665, 300 ships left Boston harbor each year. By 1675 MBC residents owned 230 ships over 50 tons.

In 1667, when the Massachusetts General Court met again, Hull settled for an up-front payment of £40 then a yearly fee of £10 for his coining privilege. The same year Joseph Jenks Sr., the first colonial iron-foundryman, from Lynn, Massachusetts, made a minting proposal to the General Court. The Court turned him down. Some say he engraved Hull's dies, but more likely he only supplied the die steel.

The Second Anglo-Dutch War ended in 1668 with the Treaty of Breda after humiliating losses for the British.

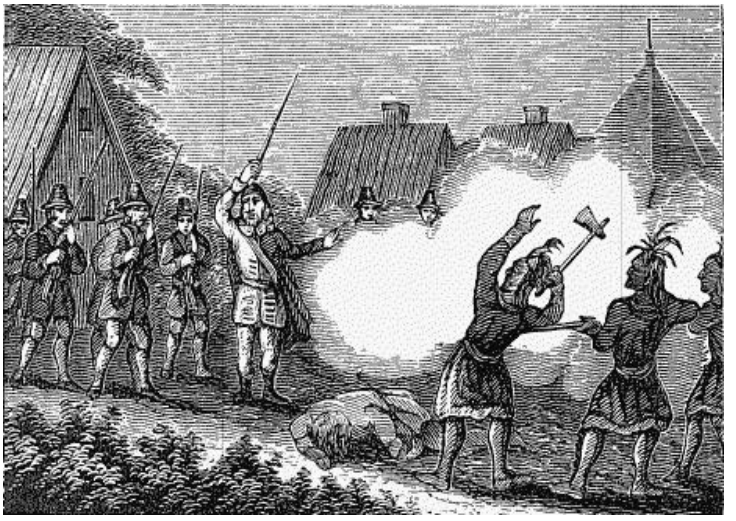
England loved pirates and privateers and commissioned them to prey on Spanish commerce. Privateers worked for others, whereas pirates worked for themselves. Buccaneers were a group of roving pirates in the Caribbean. The word derived from them smoking wild cattle meat over wood fires in little huts called "bucanes" in French. They often congregated in Hispaniola (modern day Dominican Republic and Haiti), or Tortuga, a small island off Haiti, but were not impartial to Boston!

John Hull moved from the first to the Third Church, where they elected him the ruling elder in 1669. He sailed to England later in the year to seek a new minister to lead the church, and settled on a Dr. Leonard Hoar. Hoar had been brought up in the MBC from the age of eight, and graduated from Harvard in 1650. Dr. Hoar then returned to England where he obtained his MD from Cambridge in 1670. He married Bridget Lisle; the daughter of another man wanted for regicide.

Dr. Hoar sailed back with Hull in 1671, but instead of becoming the minister of the Third Church, he became President of Harvard. In 1674 Dr. Hoar invited Hannah, Hull's only surviving child, to the Harvard Graduation ceremonies. Only four people graduated! One of the was Samuel Sewall who ended up marrying Hannah.

The General Court met again in 1675 when Hull settled for a yearly mint fee of $20 and a reduced commission of 15 pence rather than 15 plus 4 pence per 240 pence produced (6.25%).

That year also saw King Philip's War, a major attack by Native Americans on the encroaching settlers. The Plymouth Pilgrims in 1620 made a treaty with Massasoit which lasted until 1660. Massasoit's son Metacomet (whom the English named King Philip) repeatedly broke treaties. Philip went on a rampage in 1675 burning white towns. The General Court appointed a "Committee for the War", with Hull as treasurer and a member of the General Court.



Colonists defending their settlement

Hull raised 1,000 men, bought muskets, and set up a powder mill. He was no slouch! MBC had eight companies of 200 men. They appointed Hull Captain of one company, and the next year Treasurer of the Colony. The Mohegans remained faithful to the English, though the

Narragansets turned against the English. The English shot Philip in 1676. The war ended in early 1677. By then 500 of the 5,000 military age white men were dead, and Indians had burnt 80 towns leaving damages of £100,000.

Hull lent the colony £1,300 for military pay and munitions. MBC sold the captured Native Americans into slavery in the West Indies, an odious task carried out by Hull. England gave their colonies no help.

1675/6 was a joyous year for Hull. Samuel Sewall, whom Hull took under his wing, married his daughter Hannah at the "Old Hall" i.e. the Hull homestead. He was the one Hannah met at a Harvard graduation. Sam was 24, Judith was 18.

Governor Simon Bradstreet himself read the marriage vows. Nathaniel Hawthorne said Hull weighed his daughter against pine tree shillings, which he gave as her dowry. Hull gave Samuel a dowry of £500 (which equated to Hannah weighing 102 lbs.). So, the tradition that Hannah's dowry was her weight in silver may not be far from the truth! That year they started shipping goods in the new joint account of Hull and Sewall.

Tercentenary of MBC 1930 reverse. #158

After 1675 the crown's attitude towards the MBC changed. The Lords of the Committee for Trade and Plantations in England sent the king's agent, Edward Randolph, from London. When he arrived in Boston in 1676, John Leverett, an ex-Cromwell officer, was MBC Governor. Leverett disdained royal authority.

After a month, Randolph returned to England and gave a very damaging report to the King's Privy Council. He said the MBC gave suffrage only to church members, coined money, protected those guilty of regicide, and did not take oaths of allegiance to the King. By this time, he estimated the population of Massachusetts, New Hampshire and Maine as 150,000, with 6,000 soldiers and 1,200 cavalry: a sizable, well-protected and wealthy body of people.

MBC realized they needed to negotiate, so sent two agents, William Stoughton and Peter Bulkely, to England to represent them.

Yet another great fire spread through Boston in 1679, this time destroying one of Hull's warehouses. He lost a fortune.

The heirs of Sir Ferdinando Gorges (the original grantee of Maine in 1622) claimed Massachusetts had established plantations there. The heirs of Captain John Mason (the original grantee of New Hampshire in 1621) claimed the same. John Mason (ca. 1600–1672) was the Captain in charge of the Pequot massacre in 1637.

In 1676 Joshua, son of Uncas, the Mohegan Sachem, bequeathed his hunting grounds in eastern Connecticut to 16 proprietors. One of these was Mason's son John, who sold lot #3 of his tract to John Cates in 1689, who built my home in 1691.

Rather than waiting for a negotiated agreement, MBC unwisely bought the Maine rights of Gorges heirs for £1,250 (Hull had to find the financing!)

Buying Maine inflamed King Charles II further. The Lords had had enough. They set about vacating MBC's charter and sent Randolph back in 1680 as New England Collector of Customs. Finally, in 1684 the King's council judged against MBC and its Governor, vacating its charter.

John Hull died in 1683 aged 59. His estate proceedings made no mention of the mint which stood on his land. It is possible he sold the mint to Sanderson before he died. Hull died

intestate. His estate included one twelfth to three quarter ownerships in 15 ships, of which four were lost at sea.

His widow got one third of his estate. Hannah and Sewall got two thirds. Hull was well informed on international banking procedures. He had accepted funds and commodities from colonists and had sent instructions via agents to pay relatives in England and vice versa. He had also dealt in mortgages and loans at 5% to 8% interest.

Perhaps New England's most prosperous merchant with a peak net worth of £16,000 in 1680, he had made a fortune and lost a fortune. He had acted not only as the Colony's treasurer but also as its banker, and lender of last resort, a J.P. Morgan of his day. By 1683 lawyers valued his estate at £1,700, much owed to him by MBC, who never paid him. But Hull was a very religious man. For him business losses meant God was trying him, and that he loved him. In those days resigning oneself to misfortune taught great self-control.

When King James II (1685–1688) replaced Charles II, he decided the colonies had too much autonomy and revoked their charters. He made the colonies the "Dominion of New England". He sent over Sir Edmund Andros as the English Governor General in 1686 with orders to remove the vacated charters of Massachusetts and Connecticut.

When Andros came to Connecticut, he demanded the charter be handed over. As the story goes, they produced it, but suddenly the lights went out. Someone passed the charter through a window to a Captain Joseph Wadsworth. He hid it in a cavity about two feet off the ground in an unusually large oak on Wyllys Hill in Hartford.

The tree then became known as Charter Oak, the trunk growing to a circumference of 25 feet. A storm destroyed the tree in 1856. A white marble slab now adorns the spot, and the Connecticut Historical Society now holds the Charter.

Andros was also interested in the Massachusetts pine tree coins that colonists still minted as late

Sir Edmund Andros, painted by successful female painter Mary Beale.

as 1682. In 1688 the Protestant King William III displaced the unpopular Catholic King James II. Andros enforced the restrictive Navigation Acts, invalidated land titles, restricted town meetings and promoted the Church of England. Colonists still hoped that he would allow re-establishment of the mint. For two generations they had played a cat-and-mouse game with the Crown and had only known independence.

1800s engraving. Boston mob arrests Andros 1689.

An angry Bostonian mob arrested Andros in 1689 and held him before returning him to England. Andros had been Governor of New York, with whom Boston always felt a rivalry.

In 1691 William III gave a new charter to the merged Plymouth Colony and Massachusetts Bay called the Province of Massachusetts Bay.

Connecticut had several options of how to restart its government. Some advocated direct ties to the crown with a royal government. Others lobbied to draft a new charter. Connecticut eventually opted to return to the status quo. They reinstated the government under their 1662 Charter, and reinstated all leaders in place before that!

The 1662 Connecticut Charter was different from the "Connecticut Constitution". John Fiske, a popular Connecticut historian in the 1800s claimed Connecticut's 1638 - 1639 Fundamental Orders were the first written constitution in history. Connecticut license plates still have the label "Constitution State".

THE COINS

The number of known dies (taken from Salmon), and current rarity (taken from Red Book prices) suggests how many coins they produced:

Shillings	Obverse	Reverse	Red Book price VF Shilling
NE	3	4	$140,000
Willow	3	5	$120,000
Oak	12	8	$6,000
Large Pine	10	7	$5,000
Small Pine	15	8	$3,000

A huge leap from these figures might suggest durations of minting (huge guess!) of 1, 2, 7, 9 and 11 years, rather than 1, 7, 7, 7 and 7 years.

Books on Massachusetts silver

Three seminal works exist on Massachusetts silver. First is Sylvester Crosby's 1875 *The Early Coins of America* which lists obverse and reverse varieties of Willow, Oak and Pine Tree coins. The second is Sydney Noe's 1950 *The Silver Coinage of Massachusetts"* The third is Christopher Salmon's 2010 *The Silver Coins of Massachusetts*. Michael Hodder made a plea in the Colonial Newsletter in 1994 to abandon the Noe numbering system and return to Crosby's system, but Salmon's system has superseded this.

Contemporary mint procedures

All of Hull and Sanderson's coins maintained a purity of 92.5% or better. The weight of shillings varies by only a few percent. Weights of American Numismatic Society Massachusetts shillings are 4.54 to 4.67 grams.

As they clipped planchets before striking the best way to detect clipping is to weigh the coin. They hammered down silver ingots on an anvil to make silver sheet, using intermittent annealing to soften the silver. They did not have rolling mills.

Although England's Tower Mint had experimented with the screw press in Queen Elizabeth I's reign (1558–1603), they abandoned it, returning to hammered coinage which was much faster.

Nicholas Briot re-introduced the screw press alongside hammered coins in 1631 during Charles I's reign. This state of affairs continued until the restoration of the monarchy with Charles II in 1660, whose coins were only screw press.

The British Royal Mint appointed the French moneyer and engineer, Peter Blondeau as Mint Engineer. After 1662 they produced only screw press coins. Blondeau applied a milled edge with a secret machine, presumably similar to a Castaing machine. He also introduced rolling mills to produce sheet silver with a precise thickness.

Contemporary forgeries of Massachusetts silver are common, as are clipped coins.

Did 1652 protect colonials from prosecution?

Numismatists have repeated the story that the 1652 date on Massachusetts silver protected MBC against treason. Only the king could mint coins. However, if MBC feared only the monarchy, they would have felt free to date 1652–1660 coins during the interregnum. They

did not. Likewise, they would not have dated the Oak Tree two pence as 1662 after the restoration of the monarchy. 1662 was not a mistake; legislation specified it. In 1665 the King's commissioners demanded the General court repeal their 1652 mint act. The Court refused. The 1652 date may have been an obstinate tradition rather than a protection.

When did they mint which coins?
People have surmised the exact periods of minting from Massachusetts General Court records. But how do we know Hull started or stopped exactly when the Court met?

William Wild writes a chronology of Massachusetts silver issues, with constant question marks. (CNL page 259). Thomas Hutchinson (1711–1780) wrote a history of Massachusetts, and commented, "it cannot be determined in what years the pieces were coined".

Sydney Noe comments: "In the diary of John Hull, the Mint Master, the coinage comments are, unfortunately, minimal". Bowers says, "the exact order of styles… and striking is not known (other than the date 1662), … we know little about when types were changed, despite many theories on the subject."

Different dies were used at different times, which may have extended outside the neat cut-offs listed in the Redbook. It appears unlikely, given the rarity of Willow Tree coins and the paucity of their dies, that the mint spent the same seven-year period the Redbook lists for each of the five designs.

For example, the spiny oak tree shilling looks suspiciously like a pine tree, or transitional tree to me. How do we know this was not the beginning of the pine tree issues? I am not aware that Hull described in his diary when he minted each type of coin let alone the dates of each die.

As numismatists we assume that others would also have kept records, but more likely Hull simply used one die after another to produce the coins they needed, unfortunately without known records. It is unlikely that he disposed of good working order dies just because he wanted to change the design. He would have used up the dies until they were unserviceable.

Privy marks
Some have talked about privy marks, though no documents mention them. Privy marks are secret marks on coins that indicate the minter and possibly other details. They could have used private privy marks as anti-counterfeit devices. But this would not have helped the public who did not have that information. Some have suggested that variations in dot design and spelling were private privy marks, but this is all entire conjecture.

Output of the Hull mint
How many coins did the mint make? In Jordan's book *John Hull, the Mint and the Economics of Massachusetts coinage*, he calculates on page 101 that the mint could make 194 shillings in a day. However, this was not a daily occurrence. From 1671 to 1680 (page 115) he shows that over a ten-year period people brought enough silver into the mint to make 74,000 shillings i.e. a total of £3,697, an average of only £370 a year. Mint output depended on how much silver people brought to the mint.

With his wider businesses, expenses and overhead, Hull likely made an insignificant income from minting and simply felt it was his obligation as the colony's leading merchant, banker and silversmith to help the colony.

Metrology (from Jordan, Hain's coins)

Weight in Grains,

Shillings	Low	High	Mean	#
NE	69.8	72.1	71.20	3
Willow	62.7	71.7	68.33	8
Oak	61.0	74.6	70.34	38
Large Pine	63.7	73.8	68.61	40
Small Pine	62.7	75.5	69.56	33

Massachusetts Bay shillings were supposed to be 72 grains, but averaged 70.

Mercantilism
This is a difficult philosophy to wrap one's head around. Mercantilists believed that the path to riches was an increase in the gold and silver specie in the mother country. (The modern

equivalent might be how much money is in your bank account).
They believed that colonies' main function was to export raw goods to the motherland which the motherland could enhance e.g. weaving cloth and making clothing out of raw cotton etc. Officially mercantilists refused to let bullion specie out of the country. But in practical terms the colonies could not buy and sell goods locally or internationally without at least some bullion. So, it was more a matter of degree. They had to pay the British army abroad in specie, and the locals often received that specie. Colonists likely made larger purchases with bills of exchange.

Spanish silver
Spanish American silver was by far and away the most common silver circulating in New England. From 1556 to 1732 the 8 Reales cobs were 27.07 grams of 93.05% silver. In 1732 Spanish American milled 8 reales pieces changed to 27.07 grams of 91.67% silver.

NE coins (started ?June continued to ?October 1652, or to ?1654)

Hull and Sanderson hammer struck these planchets with a punch, which occupied a relatively small area. Most of the time the punch struck up well. Hull also recognized that punching opposite ends of the coin prevented flattening of the punch mark when they applied the second punch.

They probably used a cold flan placed on a steel anvil. They often angled the punch resulting in one area better struck and the opposite area weakly struck, just as found with silversmith marks.

The striker could re-punch an unsatisfactory strike by settling the punch into the silver and re-angling the punch, thus some double striking of these coins is not uncommon.

The Mint opened in the summer of 1652. By October 1652 the Massachusetts General Court presumably realized people could easily clip these coins and authorized new coins. Nevertheless, as far as I am aware, no clipped NE coins exist today.

Noe points out that the Willow tree coins used three sets of dies. Engraving these in MBC where steel was scarce, took time. Massachusetts silver dating is still conjectural, but likely did not fall into the Red Book's neat seven-year periods.

The only iron foundry in the Colony in 1652 was that of Joseph Jenks Sr., of Hammersmith, now called Saugus. This had the only blast furnace in MBC that produced cast iron. The furnace was a 21 feet-deep granite lined pit with two-foot thick walls. It could reach temperatures of 3,000°F.

Jenks made scythes, pots, anvils, saws, axes, tools and wrought iron bars. He could also make steel, harden it and anneal it. Hull's furnace only melted silver (1,761 degrees F). But whether he could harden and anneal steel is another matter, though his father was a blacksmith. Jenks may well have made the die steel. He may also have hardened and softened the steel for engraving. Whether he engraved any dies is conjectural.

Likely, Hull continued NE coins until the new dies were ready possibly in 1653. Jordan says possibly 1654 (*John Hull, The Mint etc*. page 86).

New England Shilling. Courtesy of Heritage Auctions, HA.com

Willow tree coins (?Oct 1652 or 1654 to ?1655 or ?1660 or ?1662)

In October 1652 the General Court authorized new coins: a tree in a circle with MASATHVSETS IN around. The other side specified "the date" and the number of pence in Roman numerals within a circle, with NEW ENGLAND AN DOM around. It did not specify 1652.

The Willow tree coins suddenly enlarged the area to be struck. Hull and Sanderson had a difficult time with this. They could not strike the planchets fully. Sydney Noe, Walter Breen and Philip Mossman all feel the planchets were hammer struck. Salmon feels they fixed the lower die; Noe felt it was free to move.

Salmon feels that Hull and Sanderson treated the hammering of the die like a silversmith's mark. They would re-sit the die and re-angle it to strike up all areas of the coin. Neither of them had any experience in coining or minting. The mint house built in summer 1652 was the shop where Hull and Sanderson forged and made silver objects and coins. The General Court specified it be 12 feet square, 10 feet high and sturdy. They had no rocker press at that point.

As mentioned, some have posited that Joseph Jenks engraved the dies, more likely he made the steel but did not engrave it. He was a blacksmith, swordsmith, and mechanic, not an engraver. Noe opines apprentices did the engraving, as they often reversed S's and N's.

Willow Tree coins were a production disaster. They struck presumably cold planchets, angling the dies in different directions to strike up all the elements. The resulting coins show multiple strikes, both off center and rotated, with patchy unstruck areas.

Crosby, who did not seem to appreciate this, listed the repeated letters as though they were spelling errors! Noe pointed out that Hull's dies spelled words correctly, and that double striking caused the incorrect spellings. He also commented on the crudity of the dies, leading one to suspect that the die sinker (? an apprentice) was not the same as the Oak and Pine Tree die sinker.

Today we know that ancient Greeks and Roman minters used heated flans to improve strike. It seems curious that Hull and Sanderson, who had gone through lengthy apprenticeships in metalsmithing did not think of this. But they had never thought to soften their silver products before punching their silver marks. Perhaps they thought why should we soften planchets to do the same?

Why the Willow Tree disaster? One explanation: they simply set up the mechanism for coin production and hired others to do all the work, while they attended to other more pressing business. If they made money on the coinage and had a monopoly, they could ignore quality control. They probably made little from the enterprise at that point.

In view of the rarity of these pieces, and the paucity of their dies, they likely did not strike them for seven years. The dies took time to make and may not have been ready until 1653 or 1654. Noe opines Oak Tree coinage could have started as early as 1655. The coins may only have been in production for a year or so.

Before 1865 numismatists treated Oak Tree and Willow Tree coinage as the same. In Elliot Woodward's sixth coin sale in 1865, he advertised lot # 2524, an Oak Tree Shilling. He commented, "tree on this remarkable piece is quite unlike an oak, resembling more nearly a Palmetto tree". Coin dealers thereafter called this variety "Palmettos" rather than lumping them, as they had done before, with Oak Trees. New Englanders likely had never seen a palmetto as it only grows in southern states!

Sabal Palmetto Tree in Florida

Joseph Mickley (1799 – 1878), the "Father of American Coin Collecting", changed the name Palmetto to "Willow Tree". In Woodward's tenth sale (the Mickley Sale) in 1867 he listed a shilling as a Willow Tree.

Willow Tree Shilling Courtesy Heritage Auctions. HA.com

222

Massachusetts Oak Tree Shilling. Salmon 7-E1; 24mm, 4.67 Grams VF

1467

Massachusetts Oak Tree Twopence, Large 2. Salmon 1-B; 14.5mm, 0.67 Grams VF

Oak Tree Issues (?started between 1655 and 1662, lasted to ?1667)

On October 16th, 1660 the Massachusetts General Court met and recorded that the previous agreement with the mint masters was unfavorable. They wanted terms more advantageous to the colony. Hull and Sanderson absolutely refused to allow a lower fee. Instead they offered £10 as a gift. There was no mention of a new type of coinage (Crosby page 71).

On June 7th, 1661 the Court met again. They accepted Hull's £10, and "what else they Cann Gett by way of Recompence for the mint house for the tjme past". Again, there was no mention of any new style of coinage (Crosby page 72).

On May 16th, 1662 the court met again. The order for coinage stated, "It is Ordered by this court… to Coyne two penny peeces of Siluer (£50 for each £100 [coined] in the first year, thereafter £20 per £100 coined)… this order is to Continew in force for Seauen yeares" (Crosby page 73–74). Hull dated these coins 1662.

The General Court seemed to like to make seven-year contracts. Hull's seven-year contract could have started in 1662 or in 1660.

Hull was MBC's most prominent merchant, and imported silversmith tools for himself and for other silversmiths. He visited England several times, when he may have come across a rocker press, or read about its technology. He could have shipped the press over in one of his many ships at any time. Getting hold of the press was not the issue, realizing its technology and existence was the issue.

The bog iron smelted in the Bay Colony was poor quality for decent dies. Better die steel may have been imported from the Spanish via the West Indies, and Hull or Sanderson could have engraved this quality steel with better craftsmanship to start the Oak Tree series.

It is always stated that Hull struck Oak tree coins from 1660–1667. However, Clarke, in his book, *John Hull, a builder of the Bay Colony*, also says the General Court passed the new law on May 7th, 1662, while Hull and two colonial agents were in England trying to pacify the new King (page 97). Would Hull have been able to manage a sudden change in coinage style while away in England? Sanderson may have been able to, but it seems he was the less dominant of the two. Switching from crude hammered dies to rocker press with superior dies needing convexity was more likely a job for Hull to manage in person.

On the other hand, Noe conjectured that Oak Tree coins displaced Willow Tree coins somewhere between 1655 and 1657. This also makes sense because of the paucity of Willow Tree dies, and the rarity of Willow Tree coins, in comparison with Oak Tree coinage.

The spelling of MASATHVSETS is identical to Hull's spelling in his diary. It is not a mis-spelling.

Experts, Michael Hodder, Richard Doty and Louis Jordan feel the Oak tree and large Pine Tree coins were struck with a rocker press, not on a screw press, as previously thought.

Rocker presses had started in the 1500s, in Germany and Austria, and continued in use in the 1600s in France, Scotland and England. Each die was convex. Thus, the pressure only applied to a small strip of the die at any one time, reducing the need for higher pressures that would be needed to strike the entire die at once.

When the Boston silversmith, John Coney who may have been apprenticed to Hull, died, his 1720 estate inventory contained "an engine for coining with all the utensils belonging thereto". This was likely a rocker or a screw press, possibly even Hull's.

The characteristics of a coin produced by a rocker press are:

- planchet thinning at 6 and 12 o'clock
- eccentricity of central circles (Salmon uses the ratio of the two axes which he calls the Inner Circle Index or ICI)
- smudging of lettering or devices at 6 and 12 o'clock
- parallel striations
- mild planchet waviness after striking.

Think of a rocker press as two rollers squeezing the planchet between them, but only having an excursion of 20 degrees.

Doty said that the obverse die was at the bottom on a rocker press. Some coins will have the same registration between obverse and reverse, speaking to die alignment in the rocker press for that particular production run.

If the vertical and horizontal axes of the beaded circle are identical this could mean die makers were compensating for the eccentricity of the circle in their die engraving. Now that's sophistication in the 1600s!

Salmon says die engravers likely made the dies flat then hammered them to a slightly convex form. He suggests this because a centering dot is not useful for a convex die and some of these coins have a centering dot (nicely seen on the oak tree shilling below). A centering dot enables the engraver to draw a precise compass circle to make a precisely round circle of pellets.

Double centering dots on oak tree shilling. Note extensive die polishing marks.

One would have thought that engraving a die then hammering the surface to make it convex, could obliterate the design. I have tried scribing a circle on a convex surface (the side of a cut glass tumbler). With the mild curvature needed, scribing a circle is not a problem. Thus, the dies could just as easily have been convex before sinking them.

It is said the main trunk of the tree symbolized England, and the smaller shoot on the left symbolized New England and the small shoot on the right the Virginia Colony.

An old superstition is that a bent coin protects against witches, expressed in the Mother Goose rhyme about a crooked man who "found a crooked sixpence upon a crooked stile".

Formerly, people believed the bent oak and pine tree planchets were from "witch bends" i.e. someone had bent the coin to protect against witches. Witch hysteria hit New England intermittently from 1647 to 1715.

We now know the bend is from the rocker press. Indeed, some old collectors (early coin doctors!) squashed the coin flat believing that was the proper form, and this can be detected. I wonder whether this is what happened to the 1662 two pence illustrated two pages back!

A witch bend is not the same as teeth marks. Teeth marks meant someone was testing the silver to see if it was hard like silver or soft like lead. Another trick today is to see if you can write on paper with the edge of the coin.

Breen surmises Oak Tree issues probably included 5,000 to 10,000 coins. With four times the number of obverse dies in the series, they are obviously much more common than Willow Tree issues (which sell for 20 times the price of Oak Tree issues). If there are so many of these coins around today it is credible that the production time extended into many more years than Willow Tree coins. Thus, Willow Tree coins were probably not produced for seven years till 1660, and Oak Tree coin were probably produced for more than seven years, and started earlier than 1660.

Large Pine Tree issues (?1667 – ?1674)

On May 15th, 1667, the General Court met again, and recorded, "mint masters, haue agreed (to pay £40) & for seven yeares next Coming (£10)". During this period Hull and Sanderson produced the Large Pine Tree shillings using 9 obverse and 6 reverse dies. Die steel was rare and expensive, thus many dies were re-engraved to save the dies. One of the reverse dies of an Oak Tree sixpence was used for a Pine Tree sixpence. Large Pine Tree coins were also probably made with rocker presses.

499

Massachusetts Spiny Oak Tree Shilling. Salmon IIA-G1; 27mm, 4.50 Grams VF

500

MASSACHUSETTS LARGE PINE TREE SHILLING. SALMON 2-C; 28MM, 4.23 GRAMS VF

2905

Massachusetts Pine Tree Sixpence. Salmon 2-B; 19.5mm PCGS AU 53

2945

Pine Tree Threepence 1652 Ex: Norweb Ex: Partrick. Salmon 1-A; 16 mm, 1.12 Grams NGC AU 53

Whether Large Pine Tree coins started with the Court's renewal is conjectural. They were probably being produced at that time, but when did they start and stop? Tradition has it they started with this legislation, but they could well have started before to account for their volume.

Small Pine Tree issues (?1675 – ?1682)

On May 12th, 1675 the General Court met again. They wrote, "*Whereas the time formerly agreed vpon w^th^ the mint masters is now expired, for the future well settling of that matter This Court doth desire & Impower the Honoured Goune^r^ and magistrates…. To make such an Agreement w^th^ them for the Coyning of the mone of this Jurisdiction as may be most Incouraging to all persons that haue bulljon, to bring the same to the mint… The former master of the mint shal Continue to mint what Siluer bulljon shall Come in for this Severn yeares next to Come……and doe receive…. As a full reward….twelve pence for euery twenty shillings & three pence for the wast of euery three ounces of sterling (20 shillings)".* This was a 4.9% seignorage.

Presumably a new screw press came into operation for Small Pine Tree coinage. Would this starting date be identical to the General Court's seven-year period dates? More likely, when the new press arrived, they made new dies (flat, not convex) for the screw press. This would have taken time. Would they have stopped using the rocker press immediately? Probably not. They would have used up their old dies for each denomination on the large Pine Tree coins first, until the valuable dies became unserviceable. Hull and Sanderson produced 3d, 6d, and 12d coins with the New England, Willow, Oak and Pine Tree styles. Some suggest discrete cut off dates between each style, where they suddenly threw away three pairs of good dies and switched to three new pairs. I think this is simplistic. Working dies were valuable. The changeover likely depended on which die failed, when people brought in silver, and what coins they demanded.

Small Pine Tree Shillings were called Boston or Bay Shillings in the 1680s. Many MBC troops were paid with these coins during King Philip's War of 1675–1676.

The General Court extended Hull's license until 1682. Hull died in 1683, and Sanderson in 1693. The "frozen date" of 1652 had been used for 30 years!

There is no record of what happened to Hull's "shop" or mint house. He may have sold it to Sanderson. In 1683 Sanderson would have been 75 years old. I have not seen any documentation of whether Hull or Sanderson continued using their dies after 1682. The Court had already renewed their 1660 seven-year contract in 1662, two years late. So, when they renewed the 1675 contract which ended in 1682, Hull and Sanderson may have assumed they could continue as before, assuming a new contract would soon come along.

The cut-off date for small pine tree issues could be anywhere from 1682 to 1693. Perhaps it was from 1683 for as many years as the elderly Sanderson desired. Please see the timeline two pages ahead.

References

Bowers, Q. David. *Whitman Encyclopedia of Colonial and Early American Coins*. Whitman Publishing LLC. Atlanta, Georgia, 2009.
Breen, Walter, *Thoughts on the quantities of Pine Tree shillings*. Colonial News Letter. Sequential page 624.
Breen, Walter. *Walter Breen's Complete Encyclopedia of US and Colonial Coins.* Doubleday Books, New York. 1988.
Clarke, H.F., *John Hull, a builder of the Bay Colony.* AW Pollock & Co, Wolfeboro, New Hampshire 1993.
Crosby, Sylvester. *The Early Coins of America*. Published by author Boston 1875.
Hutchinson, Thomas. *The History of Massachusetts Bay*. M. Richardson. 1765
Jordan, Louis. *John Hull, the Mint and the Economics of Massachusetts Coinage*. Colonial Coin Collectors Club. University Press of new England, Lebanon NH. 2002.
Noe, Sydney, *"The Silver Coinage of Massachusetts"*. Quarterman Publications, Lawrence, MA. 1973 (contains ANS material from 1943 to 1947)
Salmon, Christopher *"The Silver Coins of Massachusetts*". ANS New York 2010.
Wild, William J., *Six over Twelve.* Colonial News Letter. Sequential pages 257 – 260.
Yeoman, R.S. *A Guidebook of United States Coins*. Whitman Publishing Pelham, AL. 2019.
https://cdn.loc.gov/service/gmd/gmd376/g3764/g3764b/ct005901.jp2
https://cdn.loc.gov/service/gmd/gmd376/g3764/g3764b/ar090300.jp2
https://en.wikipedia.org/wiki/Asia_Bibi_blasphemy_case
https://coins.nd.edu/ColCoin/ColCoinIntros/MAMintDocs.studies.html
https://en.wikipedia.org/wiki/John_Hull_(merchant)
https://en.wikipedia.org/wiki/Jeremiah_Dummer_(silversmith)
https://www.loc.gov/resource/g3764b.ar089600/
https://masscommons.wordpress.com/2014/06/25/the-hull-mint-without-notifying-or-seeking-permission-from-the-british-government/
By Artist unknown - Source site:, Public Domain, https://commons.wikimedia.org/w/index.php?curid=20251576
https://en.m.wikipedia.org/wiki/1600–1650_in_Western_European_fashion#/media/File%3AGeorge-Henry-Boughton-Pilgrims-Going-To-Church.jpg
https://en.wikipedia.org/wiki/Sabal_palmetto#/media/File:Spalmetto2.JPG
https://cdn.loc.gov/service/pnp/cph/3a30000/3a32000/3a32500/3a32588r.jpg
By Philippe de Champaigne - Europicture.de, Public Domain, https://commons.wikimedia.org/w/index.php?curid=5801451

503

MASSACHUSETTS SMALL PINE TREE SHILLING. SALMON 2-B; 25MM, 4.44 GRAMS VF

TIMELINE FOR MASSACHUSETTS SILVER

Each transition is not necessarily a point in time but depended on denomination and remaining dies at hand for that combination

MGC = Massachusetts General Court.

		New Thoughts	Old Thoughts
1652	June MGC legislates silver. Oct. legislates new design.	NE	NE, Willow
1653			WILLOW
1654	Jordan say NE continues possibly to 1654	NE, WILLOW	
1655	Noe says Oak starts 1655 - 1657	WILLOW	
1656			
1657	Noe says Oak starts 1655 - 1657		
1658		OAK	
1659			
1660	MGC says previous seignorage payments unfavorable to colony		
1661	MGC accepts Hull's £10 without decrease in mintage fees		OAK
1662	MGC legislates 1662 two pence oak for 7 years.		
	Sir Thomas Temple shows Oak tree coins to King Charles II		
1663			
1664			
1665		LARGE PINE	
1666			
1667	MGC Hull pays MGC £40 plus £10 a year for 7 yr lease.		
1668			LARGE PINE
1669			
1670			
1671			
1672			
1673			
1674		SMALL PINE	
1675	MGC legislates 7 years of minting to Hull and Saunderson		SMALL PINE
1676			
1677			
1678			
1679			
1680			
1681			
1682	Last year mint in operation.		
1683	Hull dies, but Sanderson lives on	?	
1684		?	
1685			
1686			
1687			
1688			
1689			
1690			
1691			
1692			
1693	Sanderson dies		

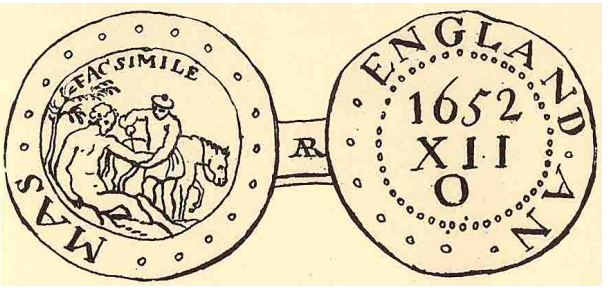
The Story of the Good Samaritan Shilling.

The Eighth Earl of Pembroke (1656–1733) was an exceedingly accomplished man. He was a member of parliament, until he inherited his Earldom in 1683. He was then the First Lord of the Admiralty, Lord Privy Seal, Lord Lieutenant of Ireland, one of the Lords Justices, and President of the Royal Society. The Royal Society is the premier intellectual scientific society in England, who can currently elect up to 52 new members a year. John Locke wrote "*An Essay Concerning Human Understanding*", which he dedicated the Earl.

Portrait of Eighth Earl of Pembroke

The Earl also collected coins. Thirteen years after he died, Hayms had plates engraved of his collection and published *Nummi Anglici et Scotici* (English and Scottish Coins). As there was no photography in those days the only way of illustrating coins was to make copper or steel plate engravings of each coin, a very laborious procedure. Whether the Earl had the Good Samaritan Shilling made, or bought it is unknown. Most likely, he bought the fake unknowingly.

Unfortunately, the Earl's son had no interest in coins so Hayms gave the book to the Earl's valet. These engravings are the first numismatic publication of American coins.



Engraving from Haym's Pembroke Book. Notice o's on legends of both sides and O beneath XII (a spread dot from counterstamp).

The Good Samaritan seal was listed as the seal of the Royal Society of London in a reference in the diary of John Evelyn. He listed the commissioners for the sick and wounded (i.e. those wounded in the Anglo-Dutch Wars from 1652–1654, 1665–1667 and 1672–1674. The stamp, which Eric Newman found on a letter of 1698 showed the word "facsimile" above the Good Samaritan scene. Newman said this refers to the Latin fac similiter which means "do likewise". It did not mean "copy".

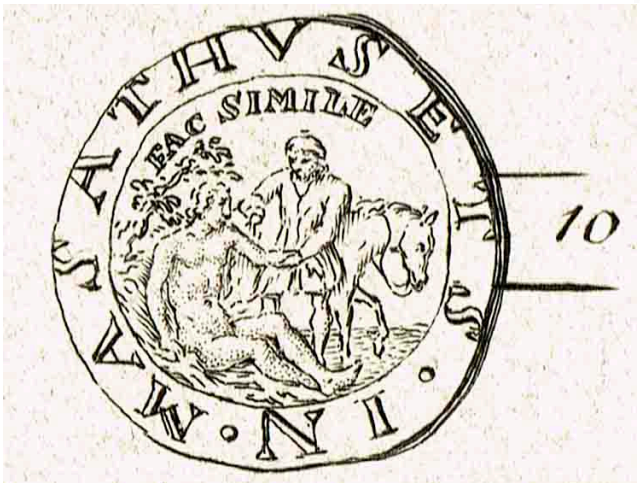
Pembroke's coins hung around in his bank until the Sotheby Sale in 1848. The Good Samaritan Shilling (GSS) then sold to the British Museum. Eric Newman wrote one of the finest pieces of numismatic detective work I have seen: *The Secret of the Good Samaritan Shilling* in 1959.

Newman went to the British museum to inspect the coin. He found the coin was a genuine Noe 25 (Salmon 8-E) small planchet Pine Tree Shilling, which had been counter stamped on the obverse with a Good Samaritan counterstamp. This was recessed inside the inner circle of beads. The reverse showed a lot of spreading of the pellets below the 1652 and especially of the dot below XII.

Pembroke Good Samaritan Shilling in British Museum. Taken from Newman's book with permission.

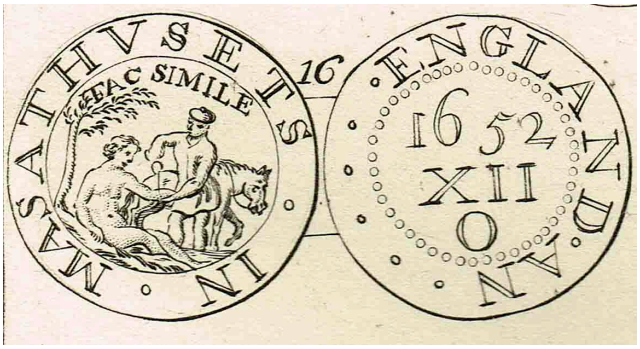
Haym's engraving of this coin showed the visible legends, but instead of leaving the rest blank, filled it in with a series of small circles. I will use GSS as an abbreviation for Good Samaritan Shilling.

Tracing through old books on English coins, Newman located Martin Folkes' 1745 *A Table of English Silver Coins*. The publisher produced later plates in 1763 which had a redrawing of the Pembroke 1746 plates except that he wrote out Masathusets in full instead of the dots. Folkes (1690–1754) was also President of the Royal Society.



Folke's engraving of GSS 1763 Note MASATHVSETS written out in full.

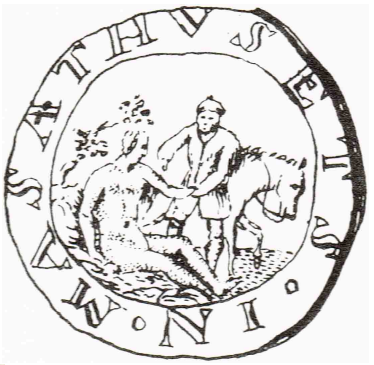
The next book Newman checked was Thomas Snelling's 1769 *Snelling on the Coins of Great Britain, France & Ireland etc,* which shows the following engraving.



Snelling 1769 engraving of GSS. Note obverse written in full, reverse with o's

Why did Snelling have the obverse engraved with the legend in full rather than only what showed? Presumably because he took it from the Folkes' book. But why did he fill in the reverse with dots? Because he took the reverse from Haym's engraving which showed only ENGLAND AN then o's.

Subsequent authors simply copied Folkes' engravings, including Ruding's *Annals of the Coinage of Great Britain*.



Rev. Joseph B. Felt's *Historical Account of Massachusetts Currency* in 1839 retraced Folkes' obverse (left) but omitted the word FACSIMILE, feeling it meant copy!

When Pembroke's coin came up for auction in 1848 at Sotheby's the catalogue rightly listed it as a forgery. Another author, John Hickcox in 1858 wrote *An Historical Account of American Coinage*, in which he also said the coin was a forgery.

Montroville Dickson in 1859 wrote *An American Numismatical Manual*, and was confused by the Snelling and Ruding engravings. He decided that one GSS had a blank reverse and one GSS had a pine tree reverse!

Charles Ira Bushnell, the famous American collector, in 1859 bought another fake GSS for eight guineas from Charles Taylor a London coin dealer. This GSS had no FACSIMILE on it. The reverse was IN NEW ENGLAND ANNO, whereas it should be NEW ENGLAND.AN.DO.

Bushnell GCC from Newman's book with permission.

The coin Dealer Wyatt had also produced copies of the GSS, which were different. The reverse said NEW ENGLAND AN DOM. In 1882 the Chapman brothers sold Bushnell's GSS to Parmelee for $650! Their catalogue said the GSS with FACSIMILE meant it was a copy!

Eight years later the Bushnell GSS passed from Parmelee to Hillyer Ryder for $210. In the 1940s the Ryder's family sold the GSS to F.C.C. Boyd.

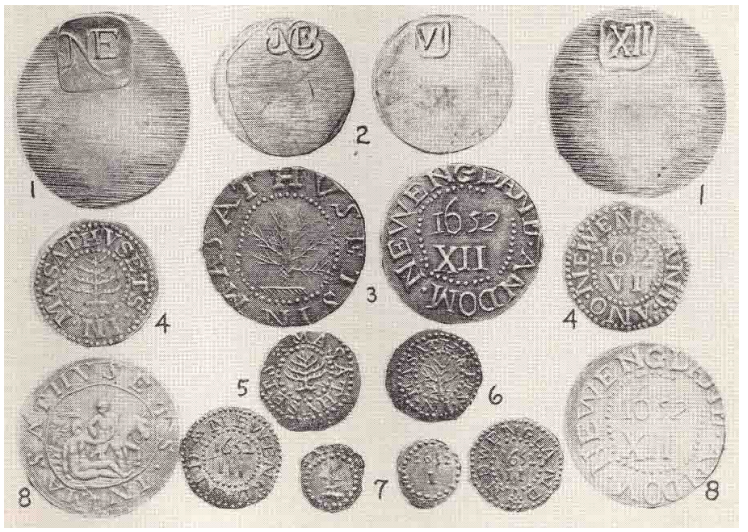
The Bushnell GSS is a forgery of a forgery because:

- ✓ the inner ring is a line and copies Pembroke's inner line, not pellets
- ✓ It omits FACSIMILE
- ✓ The Pembroke plates had dots where no letters were visible. The Bushnell GSS copied these dots, not part of the original Pine Tree Shilling
- ✓ There is no dot below 1652
- ✓ There is no outer circle of pellets
- ✓ Massachusetts General Court in 1652 specified a tree on the obverse unless the coin was a pre-1652 pattern.

Thomas Wyatt, a coin forger, created early American silver coins and related fantasy pieces. He, like John Ford, would falsify the provenances, and adamantly deny the coins were fraudulent. Newman lists Wyatt's reproductions. Many copies include the horizontal striations from Felt's illustration hatching! (See Kenny 1 and 2 below.)

Edwin Bishop from New York City, bought Wyatt's dies from which he made copies. He restruck a GSS obverse with an Oak Tree obverse on the reverse!

Wayte Raymond published, *Struck Copies of Early American Coins,* by Richard Kenny in 1952. A plate shows interesting fabrications including a Wyatt GSS.



Kenny plate showing GSS (#8)

Is the GSS a genuine American coin? Of course not! Is the 1804 dollar a genuine American coin? Of course not! They are both part of romantic collecting history! The Red Book in 1947 listed the GSS with a picture of the Bushnell fake GSS with the following write up:

"The Good Samaritan Shilling, supposed to be a pattern piece, was struck at a Boston mint and is extremely rare. This piece is of the same general type as the Pine Tree Shilling, but has a device illustrating the parable of the Good Samaritan on the obverse. It is in silver dated 1652 on the reverse". No value was listed.

The 1970 edition says:

"Although this piece was formerly thought to be a pattern for the 1652 shillings, recent findings show that the known specimens are all fabrications. Three different varieties are known. The most common type was made by Thomas Wyatt, about 1856. The variety pictured here is somewhat older and is probably unique (picture of Bushnell GSS)".

I do not have every year of the Red Book, but in 1970 they were still listing the coin in their colonial section at the end of Massachusetts silver. By 1973 it was gone.

There are thus four GSS's:

1. Original Pembroke with FACSIMILE counter-stamp on obverse of a Noe 25 Small Planchet Pine Tree shilling, made around 1675 to 1725.
2. Bushnell fake appeared 1859, made 1848 to 1858 in England without FACSIMILE.
3. Wyatt copies without FACSIMILE and with oak tree reverse made in 1856 (shown next page).
4. Bishop bought Wyatt dies and made mules with Oak tree obverses and reverses.

References

Montroville Dickson, *An American Numismatical Manual*, 1859.
Felt, Joseph B., *Historical Account of Massachusetts Currency.* 1839
Martin Folkes, *A Table of English Silver Coins*. 1745.
Hayms. *Nummi Anglici et Scotici* 1746
Hickcox, J. 1858 *An Historical Account of American Coinage.* 1858
Kenny, R. *Struck Copies of Early American Coins.* Wayte Raymond Inc. NY. 1952
Newman, Eric P., *The Secret of the Good Samaritan Shilling.* ANS New York, 1959.
Ruding. *Annals of the Coinage of Great Britain*
Snelling, Thomas. 1769 *Snelling on the Coins of Great Britain, France & Ireland etc,* Young, London 1823.
https://en.wikipedia.org/wiki/Thomas_Herbert,_8th_Earl_of_Pembroke#/media/File:Thomas_Herbert,_8th_Earl_of_Pembroke_by_John_Greenhill.jpg

785

THOMAS WYATT 1856 GOOD SAMARITAN SHILLING. W-14082; 23MM, 3.05 GRAMS 9 - 16 KNOWN

CHAPTER FOURTEEN
HIGLEY / GRANBY COPPERS

Dr. Samuel Higley (ca. 1687–1737), was born in Simsbury, Connecticut, and studied medicine at Yale under Dr. Samuel Mather and Dr. Thomas Hooker. Simsbury at the time was one of the largest townships in Connecticut. The town of Granby did not exist. It incorporated in 1786, 50 years after Higley died. Higley seems to have been a polymath — schoolmaster, surgeon, metallurgist, and blacksmith. Contemporaries regarded him as an eccentric genius.

In 1705 colonists discovered copper in the Township of Simsbury at a place called "Copper Hill". Two years later the town formed a copper mining company. In 1712 the town gave a 30-year lease to three men, Jonathan Belcher, William Partridge and Rev. Timothy Woodbridge. From 1712 to 1741 Belcher, a wealthy man, invested £15,000 in the venture, which he lost. He traveled to England, returning with 12 miners and a refiner. Because of low volumes, he closed the refinery and instead shipped the ore to Bristol, England. Belcher later became Governor of Massachusetts in the 1730s, and Governor of New Jersey in the 1740s.

Other reports say colonists smelted copper clandestinely as copper smelting contravened mercantilist British law. But most colonists could not make money out of copper mining.

In 1727 Higley patented a process to make steel. In 1728 Connecticut awarded him exclusive rights to make steel for ten years. Steel was ideal for making dies, though it should be said that Hull may have used Spanish steel to make his Oak Tree dies in the 1650s.

In 1728 Higley bought 143 acres in present- day Granby, which included a copper mine. He also exported the rich ore to England and made money doing this. Clement Bailey wrote in 1976 that Higley found pure copper nuggets in his mine, obviating the need for expensive smelting, and from which he may have made his coins.

In May 1737 Higley sailed to England with some of his copper ore. The ship went missing. Presumably he drowned at sea.

In 1773 the Connecticut General Assembly converted his mines and mine buildings into a jail called Newgate Prison. Prisoners had to mine copper ore. They often escaped. The complex caught fire three times. Connecticut abandoned it in 1827.

The Granby coppers were the first domestic copper coins in America, with the dates 1737, 1739, and a few undated. We call these Granby or Higley coppers. But who struck them? Higley's will written in 1734 discussed his land and mine, but nothing about coin making equipment.

Sylvester Crosby in his Early Coins wrote:
"owing to the fine quality of the metal of which they were composed, (they) were much in favor as an alloy for gold, and it is probably due in part to this cause that they are now so extremely rare. We are informed of an old goldsmith, aged about 75 years, that during his apprenticeship, his master excused himself for not having finished a string of gold beads at the time appointed, as he was unable to find a Higley copper with which to alloy the gold; thus indicating that they were not easily obtained sixty years ago."

According to Dan Freidus, neutron activation analysis showed Granby coppers to be 97–99.5% pure copper. There were traces of gold, antimony and zinc (similar in composition to most contemporary coins though the assay excluded tin). This illustrates well that most of the coins' history is "still based on legend rather than documented sources".

Samuel's father was Capt. John Higley (1649 – 1714), an English immigrant and also a blacksmith who became a wealthy merchant. According to Walter Breen and Roger Moore MD, an older brother John Higley Jr. (1673–1741) survived Samuel Higley. Bowers says John was Samuel's older son.

As well as his older brother, Samuel had business associates including Rev. Timothy Woodbridge, and William Cradock, who all petitioned three times in 1739 (together with a John Read of Boston) for a franchise to strike copper for Connecticut. The Court never replied. Bowers

opined that his son (?brother), Woodbridge, or Craddock may have struck the coins.

John Kraljevich suggests another person running his affairs, who could profit from them may have struck the coins. The die engraving of all the coins seems similar.

Harking back to our previous discussions of the new (Gregorian) and old (Julian) style calendar, the first coin dated 1737 (being before the 1752 changeover) would put the date as March 25th or later, only five weeks before May when Higley was lost at sea.

In 1994 Dan Freidus made a definitive die classification during an American Numismatic Society exhibit. He gathered Higley coppers from different sources. He listed 15 different die marriages from eight obverse and five reverse dies. Around that time the consensus of coins was 66 specimens.

Before answering who struck the coins let us examine the coins. They were hammer struck, often double struck, with no collar so some coins are out of round. The edges are plain. The borders are beaded. Die orientation is random. Measuring 28–30 mm, they weigh 8.00 to 10.65 grams. English halfpennies measured 27–29 mm and weighed around 10 grams. Thus, Granby coppers looked and felt like an English halfpenny.

Many obverses show a deer as the device. Today we often see deer in Connecticut. But the State of Connecticut online site states, "Due to over-harvesting, and a general loss of deer habitat caused by extensive clearing of the land for farming, white-tailed deer were uncommon in Connecticut from 1700 to approximately 1900." Settlers hunted deer and used them for venison and for their skins.

The first listed die shows the deer device with the legend: THE VALUE OF THREE PENCE (Die 1). Die 3 shows a different legend VALVE ME AS YOU PLEASE. Just because die 1 comes before die 2 and 3 does not reflect a chronological order.

Die 1.3 obverse. Courtesy Heritage auctions HA.com

A second legend reads VALVE ME AS YOU PLEASE with a III in the exergue (Die 2 & 3:

Die 3 obverse. Courtesy Heritage Auctions HA.com

Die 4 obverse. Courtesy Heritage Auctions HA.com

Die A reverse. Courtesy Heritage Auctions HA.com

Die Ba reverse. Courtesy Heritage Auctions HA.com

Die C reverse. Courtesy Heritage Auctions HA.com (Broad-axe handle points to Y = no date)

Die D reverse. Courtesy Heritage Auctions HA.com (Broad-axe handle points to T = Date 1739)

Experts have made several deductions from these dies. In 1737 the die engraver valued the copper (equivalent to an English halfpenny which passed as a penny in the colonies) at three pence — a big difference. The same year the die engraver engraved another legend as value me as you please, though placed III in the exergue. Could these coins have been a way of showing the colony of Connecticut their wears, before applying for a franchise in 1739.

Sylvester Crosby tells this story:

"We have heard it related of Higley, that being a frequent visitant at the public house, … he was accustomed to pay… in his own coin… When complaint was made to Higley, upon his next application for entertainment (liquor), which was after a somewhat longer absence than was usual… he presented coppers bearing the words. 'Value me as you please' 'I am good copper'."

This to me seems fable. It is unlikely that, within a space of five weeks, Higley, expressly to save money at his local pub, engraved a new obverse and reverse, coined the money and returned to spend it. Thus, one cannot be sure that "value me as threepence" preceded "value me as you please".

The coins hold other clues. The three crowned hammers are from the coat of arms of the Worshipful Company of Blacksmiths, a London England guild established in 1571. Samuel Higley and his father were both blacksmiths.

Worshipful Company of Blacksmiths Coat of Arms

There are other devices on the coins. Some say the broad-axe with "I cut my way through" is black humor about a surgeon operating. "A wheel goes round" could refer to philosophic maxims like the humdrum of everyday life, what goes around comes around, or you win some and you lose some. Or it may have advertised a product like steel wheel hoops.

Four other devices are present: moon, pointing hand, pentacle and starburst.

The moon seen below the III and below the O of YOU in die 3, represents death and rebirth in freemasonry and understanding the spirit.

They used the pointing hand to start each legend. A hand pointing up means heaven. A hand pointing down means the soul. Pointing horizontally means a person is proceeding on the path to their destiny. Pointing with the index finger can also symbolize fire.

Here I think they used it as a punctuation symbol. They first used this in medieval manuscripts to mark corrections or notes. They called the symbol an index or manicule and used it to direct attention to something, which looks like the intended meaning here.

The pentacle represents air, earth, water and fire (all important in blacksmithing) and the spirit, the five essentials of life. They also used it as a magical talisman and in Tarot decks as one of the suits. There are five Tarot suits; swords, wands, cups, and pentacles or coins — an interesting thought that the pentacle symbolizes a coin. The pentacle also represented the five wounds of Christ used in freemasonry.

The blazing star in freemasonry represents the sun which enlightens the earth.

Freemasonry was alive and well in America in 1730s. In 1734 they elected Benjamin Franklin as Grand Master of Masons in Pennsylvania. Four Grand Lodges started in America in the 1730s. It is possible some of the symbolism used on the coins relates to freemasonry or a secret society.

It is tempting to say the J instead of I in the reverse dies C and D could signify John, but the two vowels were interchangeable at the time! The Connecticut Historical Commission also made souvenir pieces.

So, who engraved the dies and struck the coins? It is certainly possible that Samuel designed the motifs for the coins, which might account for the blacksmith's three crowned hammers. The moon, pentacle and starburst could have been his design or the die engraver's.

It is possible Samuel did everything unless they misreported his death, but this seems unlikely.

Some say he may have engraved the first dies and struck the first coins. But he left after a few weeks. The similarity of the dies, and eight obverses and five reverses of the same fabric is too much to explain. We need to look for another person.

With 15 die combinations and a census of around 70 surviving coins, we cannot interpret this as a lark, done over a few weeks. His older brother, John, or business associate may have engraved all the dies and struck all the coins as a business venture rather than as a lark.

Samuel may have shown his associate or brother how to engrave and soften and harden the steel. This explanation seems the most likely to me.

In addition, Samuel obtained smelted copper from England. It seems unlikely they would have found enough nuggets of pure copper in their mine to have struck this quantity of coins. Finally, they may have been preparing for a coin franchise, for which they applied in 1739.

Pierre Eugene du Simitiere (1737–1784), a Swiss painter, owned seven Higley coppers, presumably as their date matched his birthdate! He called them "deer money." He painted the first known portrait of George Washington, and designed the Great Seal of the United States, later used on the small eagle and large eagle 1791 cents.

Large Eagle Washington Cent 1791. #482

Du Simitiere also suggested the motto E Pluribus Unum for the US. He taught drawing to Jefferson's daughter, Martha. A great collector, he created America's first Museum of Natural History from his own collection. His coin collection led to the first coin auction in America, sold by Clarkson and Hazard in Philadelphia in 1785.

John Adams Bolen (1826–1907) was a numismatist and die sinker who made Higley copies. At the age of 24 Bolen moved from New York City to Springfield, Massachusetts, where a jeweler and manufacturer, Rumrill and Shumway employed him. Aged 32 to 33 he became a sales agent for National Sewing Machines. He did part-time engraving and made jewelry. His avocation became full time in his late 30's. Neil Musante, the author of the two-volume master work on Washingtonia, wrote a book about Bolen and his medals.

Bolen sold his items at W. Elliot Woodward's store. Woodward (1825–1892), initially a pharmacist by trade, started auctioning coins in 1862. Like most numismatists at the time he collected and dealt with stamps, books, coins, and other collectibles. He became extremely wealthy. His estate listed in 1870 for $330,000. This was at a time when the average working wage was 11 cents an hour or $300 a year for a 60-hour working week. At the time, struck copies and electrotypes of otherwise unavailable coins sold well in auction houses as well.

As a skilled engraver, Bolen's copies could be dangerously accurate, though when he made totally unconnected mules, everybody knew! Bolen copies of colonial American coins are rare. He struck them with a screw press and no collar, thus edges were rounded.

Q. David Bowers in his *Colonial American Coins* has a whole chapter on the important topic of 19th century colonial copies and fantasies. He lists Bolen's Higley copies — about the closest most of us will ever come to owning a Higley! Even about good originals sell for over five figures!

The coin that follows is a Higley-Confederatio Bolen-Edwards mule, Bowers W-14580, which Bowers lists as three or four known, of which two are in the ANS, and none in Ford collection. Bolen made both of these colonial copy dies around 1864. Musante lists the obverse as JAB-10, and the reverse as JAB-7.

Dr. F.S. Edwards M.D. of New York City, acquired several Bolen dies and paired them illogically to make extra delectables for collectors. Bowers describes Edwards as a rascal and shadowy figure. Bowers labels the coin as JAB-M/E 13. Both sides have been canceled, which shows up as raised bars.

References

Bowers, Q. David, Whitman Encyclopedia of Colonial and Early American Coins. 2009. Whitman Publishing, Atlanta , GA.
Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins.* 1988 Doubleday, NY.
Crosby, S. *The Early Coins of America*. Published by the Author Boston 1875.
Freidus, D. *History and Die Varieties of the Higley Coppers*. Coinage of Americas Conference at ANS October 1994. Published in The Token America's Other Money ANS 1995.
Musante, N., *The Medallic Works of John Adams Bolen, Die Sinker &c.,* 1992.
Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*.73rd Edition 2020 Whitman Publishing LLC Pelham, AL 35124
Moore, R., and Gladfelter, D., *Which John Higley was the Minter and which John Higley signed the Land Transfer papers?* Colonial Newsletter, December 2012 Sequential pages 3943 – 3953.
By Daderot - Own work, Public Domain, https://commons.wikimedia.org/w/index.php?curid=49761073
https://www.heraldry-wiki.com/heraldrywiki/index.php?title=File:Lon-blacksmiths.jpg
https://coins.ha.com/itm/colonials/1737-threepence-higley-copper-connecticvt-freidus-13-a-w-8215-r7-fine-15-ngc/a/1260-15017.s?ic4=ListView-Thumbnail-071515
https://coins.ha.com/itm/colonials/1737-threepence-higley-copper-connecticvt-vf30-ngc-crosby-viii-18-freidus-12-a-w-8200-r7/a/1216-5631.s?ic4=ListView-Thumbnail-071515
https://sites.google.com/site/numismaticmallcom/encyclopedic-dictionary-of-numismatic-biographies/woodward-william-elliot

534

HIGLEY-CONFEDERATIO BOLEN-EDWARDS MULE. BOWERS-14580; .MUSANTE JAB-M/E 13; 30MM, 9.98 GRAMS UNC. 3 - 4 KNOWN

#632

HIGLEY ELECTROTYPE. (1737) FREIDUS 3-C; 27.5MM, 12.82 GRAMS **EF**

CHAPTER FIFTEEN
MARYLAND SILVERSMITHS — CHALMER'S SILVER

Walter Breen pointed out that John Hull died in 1683. Exactly 100 years later John Chalmers coined the next local token silver in 1783.

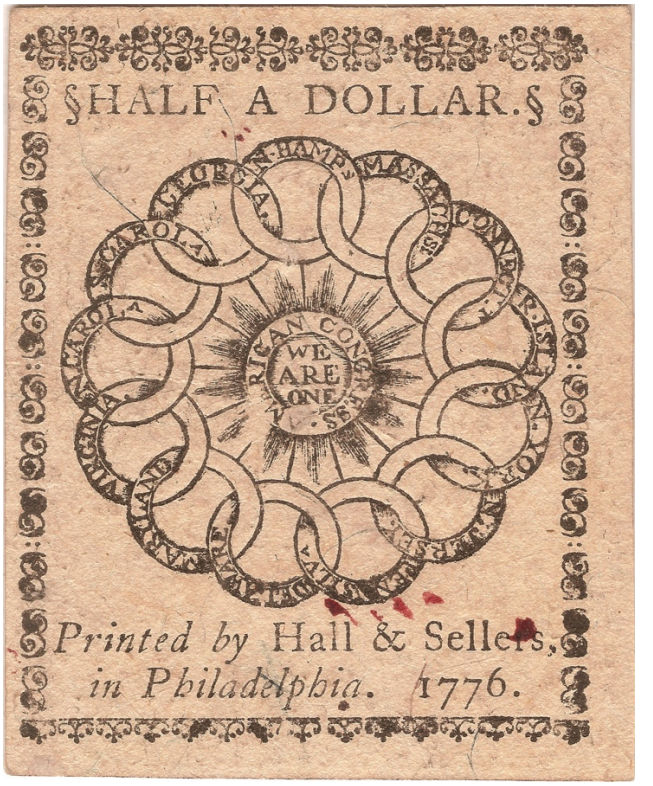
James Chalmers, was a well-known silversmith and like many Annapolis silversmiths kept a tavern. After he died, his sons, John and James Jr., continued his business. John Chalmers (1750–1817) was a Continental Army recruiting officer. While he was a First Lieutenant, his Sergeant was Thomas Sparrow, another Annapolis silversmith.

In 1785 John became the first white male to join the Methodist Church in Annapolis and became a Methodist preacher. He also gave money to start Cokesbury College, a Methodist College for African Americans. The College started in 1787. The next year arsonists tried to burn it down, but students helped put the fire out without significant damage. In 1795 the College burned to the ground. They procured a new building which also burnt down in 1796. The church then abandoned the College.

In 1789 Chalmers fell into debt. He mortgaged his property and moved to Baltimore where he opened a chandlery store. In the 1790s Baltimore eclipsed Annapolis as a port because it had a deeper harbor. Two years later Chalmers gave up his slaves. We do not know whether he manumitted them or sold them. He also worked for a time as a sheriff in Baltimore. In 1796 he partnered in a rope factory in Baltimore. The Methodist Society expelled him in 1813 for sexual relations with a slave and drunkenness. He died intestate and penniless.

In 1783 Chalmers struck his rings shilling, alluding to the colonies as Benjamin Franklin had on his 17th February 1776 fractional Continental Currency note, as 13 linked rings. Chalmers' rings enclosed a liberty cap on a pole flanked by two pentacles with an All-Seeing Eye above. The reverse showed two clasped hands with script saying "Equal to ONE Shi". The legend read I. CHALMERS. ANAPOLIS 1783. Only five exist today.

Chalmers likely intended it as a pattern proposal, as the Continental Congress met in Annapolis that year from November 1783 to August 1784. But Congress never brought the proposal forwards for consideration. The Continental dollar, 1787 Fugio cent, and 1784 Ugly head copper also used the linked rings device.



Fractional Continental Currency Back #1542

Chalmers' Ring Shilling.
Courtesy of Heritage Auctions HA.com

Despite no interest, he realized he could coin silver to circulate. He used local cut down and often underweight Spanish coins. Eight reales then circulated at 90 pence, so two bits (i.e. cutting the coin into quarters) were 22 ½ pence. But if they cut the coin into 10 bits, "2" bits were only 18 pence. Cutting down eight reales and pistareens had become such an industry, locals refused to use them.

Eight reales were 90.3% silver and pistareens were 81.2% to 84.2% silver. Most of Chalmers pieces are 81% to 83% silver suggesting that he used cut down pistareens rather than eight reales pieces. The Spanish struck pistareens to circulate outside Spain. Pistareens contained 20% less silver and people in Spain would not accept them.

The colonial numismatic author, Philip Mossman, said Chalmers made a profit of 8% on his coins. In addition, they advertised his family businesses (silversmith and tavern).

The shilling obverse showed clasped hands symbolizing the unity of the states, surrounded by a closed laurel wreath (America had just won the war), with a legend I. CHALMERS. ANNAPOLIS. The clasped hands imagery may have come from the Tuesday club (more about that later).

Obverse of short worm Chalmers' Shilling

The reverse legend is ONE SHILLING 1783. Both sides have border dentils. The reverse device shows two doves fighting over a worm, separated from a snake by a hedge. Breen says Chalmers' iconography was "while you states go on squabbling over trivialities (?boundary disputes) you don't notice what's coming to devour you (the federal government)". Chalmers may have embraced state's rights over Federalism because of sour grapes: Continental Congress would not hear his coin proposal.

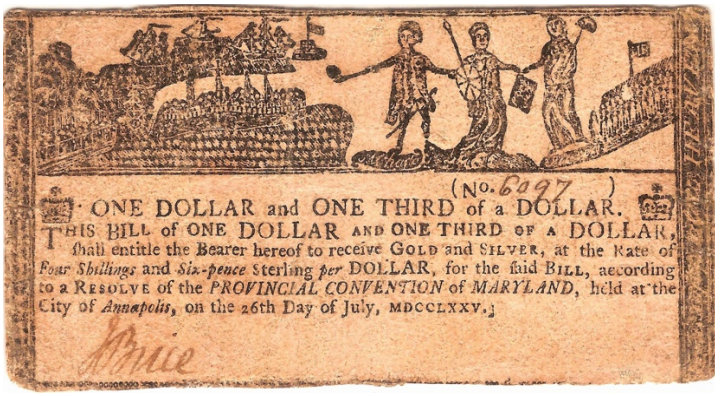
Reverse of short worm Chalmers' Shilling.

The short worm shilling is the commonest. In these coins the hedge extends from the N in ONE to the N in SHILLING. The long worm is rarer. In these the hedge extends from the N in ONE to the second I in SHILLING. Die orientation is mostly 0 degrees but some orientations are random. Chalmers struck them with a screw press without a collar.

His sixpence shows a similar obverse without central clasping hands, and a reverse cross, two arms of which end in 8 sided stars. The other two arms end in crescents enclosing a T and S, for his silversmith friend Thomas Sparrow. Sparrow engraved the intaglio plates for the border cuts for Maryland paper money of 1767 to 1774, and the famous allegorical $1.33 note of 26th July 1775 (opposite).

Maryland issued this allegorical note to promote the manufacture of gunpowder for the Revolutionary War. The woodcut (next page) depicts Britannia receiving a petition of Continental Congress from a female allegorical of America. She holds a pole and manumission cap while trampling on a scroll SLAVERY.

American troops stand behind her carrying a flag of liberty. To the left of Britannia is King George III trampling on M CHARTA, and setting an American city on fire (?Annapolis) while under attack by the British Fleet in the background.



Maryland Allegorical Note by Sparrow. #1517

Chalmers also struck a three pence silver piece. Louis Jordan says the census of Chalmers coinage is 111 worm shillings, 10 sixpences, and 20 three pence pieces. All coins have filed edges producing an appearance of fine reeding, possibly to adjust the planchets' weight (3.63 grams or 56 grains for the silver shilling). In Maryland at the time Spanish milled dollars (27.07 grams) passed at 90 pence, so one shilling would be 3.6 grams of 90.3% silver. Of course, Chalmers used 81–83% silver!

Thomas Sparrow used several devices that may have been secret code for the Tuesday Club of which his adoptive father was a member. These include three leaf clusters, pentacles, three balls for the wrist of the hand, and clasped hands.

Chalmers Sixpence top, threepence bottom.
Courtesy of Heritage Auctions, HA.com

John Chalmers' father may also have joined the Tuesday Club. The club disbanded in 1757. A Scottish Physician, Dr. Alexander Hamilton, started the Tuesday Club in 1745. Once a month prominent gentlemen in Annapolis got together. They limited membership to 15 people, but often had guests. The club called the meetings Sederunts (sederunt in Latin means "they were sitting"). Members discussed literature, music, theater, philosophy and politics, all lightheartedly and while imbibing large quantities of liquor. They also organized balls and processions during which they wore their medals, and imbibed more liquor!

Tuesday Club medal.
Courtesy of Heritage Auctions, HA.com
Note clasped hand iconography.

Another silversmith and clockmaker in Baltimore, Maryland, Col. Standish Barry, made three pence silver pieces in 1790, as advertising pieces, but they likely did not see significant circulation Perhaps 4 -12 survive. Within a few years Americans would think in dollars and cents not pounds, shillings and pence, so Barry was one of the last to espouse the English system. His coins also had filed edges like Chalmers'.

References

Bowers, Q. David, Whitman Encyclopedia of Colonial and Early American Coins. 2009. Whitman Publishing, Atlanta , GA.
Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins.* 1988 Doubleday, NY.
Crosby, S. *The Early Coins of America*. Published by the Author Boston 1875.
Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*.1947, 1970 and 1073. Whitman Publishing LLC Pelham, AL 35124
https://www.luciastclairrobson.com/blog/the-tuesday-club/

498

Short Worm Chalmers Shilling 1783. W-1785; 22mm, 3.63 Grams VF +

CHAPTER SIXTEEN
MARK NEWBY / ST. PATRICK COPPERS

Mark Newby
Mark Newby (1638/7–1682) was born in Earsdon, England, northeast of Newcastle about two miles from the sea. We do not know his father's occupation but he moved around a lot in the area.

George Fox, who founded the English Quaker movement, visited the area in 1654 when Newby converted to Quakerism. In 1662, aged 24, he moved with his parents to Dublin, to escape religious persecution.

After King Charles II's restoration to the throne in 1660 the government imprisoned over 15,000 Quakers for their beliefs, and several thousand more in Ireland and Scotland. King Charles' mother had brought up the King in the Catholic faith; he had no interest in religious freedom.

Newby became a shopkeeper in Dublin. Some sources say he worked as a chandler (tallow candle maker), but most sources see no evidence of this. He made no candles in America and had no chandlery equipment in his estate. Mark's parents soon returned to England, but Mark stayed. A year after arriving, he married Elizabeth Wilbre (also recorded as Welch) from Kilkenny, 80 miles southwest of Dublin. Her parents were landowners from Lancashire, England.

She bore their first child in 1664 in Kilkenny, then four more children in Dublin where they returned around 1665. All their five children died and Elizabeth died in 1672. Between 1665 and 1666, 100,000 died in London from the plague. Possibly his wife and children all died from plague, which spread to Ireland.

In 1675/4 Newby took a second wife, Hannah Homes from Dublin. They had a baby girl, Rachel, and moved to Ballicane (also spelled Ballikeane, now Annesley), County Wicklow. They moved somewhere between 1675 and 1681, possibly in 1678. Ballicane, 30 miles south of Dublin, was a refuge for Quakers. But even there, locals persecuted them. So, Newby immigrated to West Jersey, America, with his friend William Bates. Persecutors had jailed Newby, and had also vandalized his shop in Dublin.

Local Quakers met in Ballicane at Newby's house. There they generated a "Removal Certificate" for Newby and his friend William Bates. The certificate introduced them as Quakers in America. The certificate still exists and numismatic author D.D. Gladfelter shows a copy in his article (see references).

In 1664 the Duke of York (and future King James II) gave away New Jersey to Sir George Carteret and Lord Berkeley to settle a debt. Berkeley sold his interest to two Quakers who put it in the hands of three trustees, one of whom was William Penn. In 1676 Penn became the trustee of 4,600 square miles (3 million acres) from the "quintipartite line of 1676" from Egg Harbor to the Delaware River i.e. West Jersey (see below).

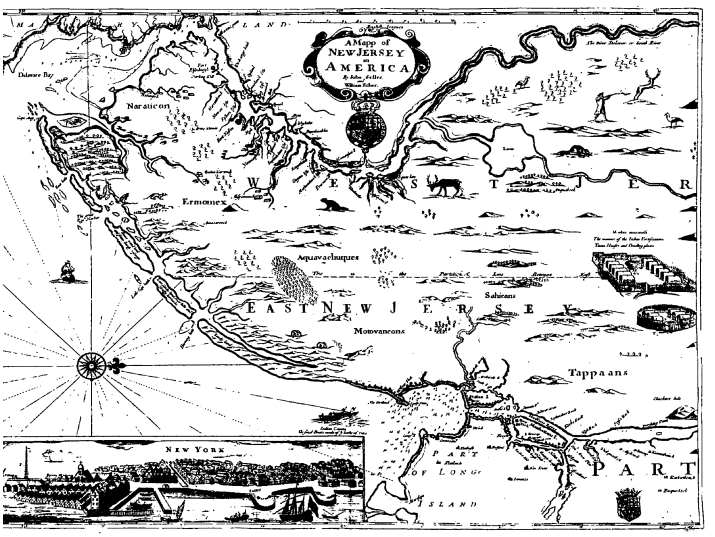
West and East Jersey, Salem and Newton.
(Delaware River divides Pennsylvania and New Jersey)

Himself a Quaker, Penn established a Quaker colony as soon as he became trustee. He formed a joint stock Company with 100 shares of £350 each. Each partner would own 30,000 acres. A group of Irish Quakers (including Newby and his friend Bates) bought two shares i.e. 60,000 acres. Mark bought 1/20th of one share (1,472 acres). These calculations seem

accurate as Sydney Martin presents in his book *Saint Patrick Coinage.* But Anton and Hodder in their *Colonial Newsletter* article say he only owned 350 acres plus another 320-acre share in another plot (see references).

In 1681 Newby, with his friends William Bates, Thomas Thackara, George Goldsmith and Thomas Sharp, set sail from Ireland in *Ye Owner's Adventure,* a small fishing boat. Twenty Quakers sailed in all. Two months later they arrived in Salem, West Jersey, (see map previous page) and overwintered there. In the spring they all bought a small boat and sailed up the Delaware River to Newton Township in present day Camden County.

Some of them then travelled to Burlington to get surveyors to lay the boundaries of their lands. Newby's land was on the north branch of Newton Creek, situated between Cooper's Creek to the north and Timber Creek to the south. At the time many creeks fed into the Delaware River (see below), though over time people filled in the creeks.



1680 map of New Jersey (North is to the right)
Note numerous creeks feeding into Delaware River
From Snyder, *Story of New Jersey civil boundaries*.

Newby used his house as a Quaker meetinghouse and locals elected him to the West Jersey Assembly. He served in three sessions in May and November 1682, and May 1683. The Assembly had the power to tax and to create courts. It could also regulate land use, civil liberties and religious expression.

Newby died in late 1683, survived by his wife and four children. He died intestate, with an estate valued at £189, and £30 of coppers. He is buried at the Old Newton Friends Burial Ground at 3010 Lynne Ave., Oaklyn, New Jersey.

A few months before he died, the West Jersey Assembly meeting of May 1683 passed an Act to make St. Patrick coppers (called "Patricks" in a 1674 Irish document) legal tender for a half penny, for transactions under five shillings. I will call these coppers "Patricks". Newby had bought with him £30 of them i.e. 14,400 Patricks. We now know the smaller coppers (the halfpence they talked about in the Act) circulated not the larger ones. Breen suggests more Patricks came over after 1737.

Newby set up the first New Jersey Bank, and put up surety of 300 acres of his land that he would exchange coppers for "pay equivalent" on demand. It was not a bank as we know it but more a supplier of land-backed small change for local commerce.

Dr. Edward Maris quotes Bishop Nicholson, who said they still passed as change in 1724 in America. Patricks continued to turn up in change in the early 1800s. Martin documents eleven ground finds from North Carolina to Massachusetts, all small rather than large size coppers. But where did they come from?

That is a long story! But here goes!

Religious persecution in Ireland

In 1641 Irish Catholic gentry and clergy rebelled against the English administration in Ireland. The Catholics worried the English Long Parliament (Protestant) and Scottish Covenanters (Presbyterian) would invade Ireland. The autocratic King Charles I (below) had closed parliament repeatedly. But in 1640 Cromwell forced him to keep open parliament (called the Long Parliament because Charles I did not keep shutting it down).

Charles I in 3 positions by Van Dyck 1635-6

After the 1641 Irish Rebellion the Irish Catholic gentry and clergy united in 1642 to form the Catholic Confederation, which governed most of Ireland.

The English Civil War started in 1642. Catholic Kings Charles' Royalists (Cavaliers) fought Cromwell's Protestant Parliamentarians (Roundheads). (See portrait below).

Cromwell from half crown by Simon 1658 #2272

Royalists suffered their first major defeat in England at the Battle of Marston Moor in July 1642. 4,000 Royalists died but only 300 Parliamentarians died. In 1645 Cromwell created a New Model Army of professionally trained soldiers, mainly Puritans. By 1646 the King left London for the North where he felt safer. Oxford later became his headquarters.

Rawlins Crown 1644 depicts Charles I riding over a view of Oxford. #2281

That year Cromwell's forces besieged Oxford. Charles then escaped in disguise until captured and imprisoned. They tried him for high treason and beheaded him in 1649. The Royalists battled on till their final defeat in England at the Battle of Worcester in 1651.

In Ireland the Catholic Confederation ruled from 1642 to 1649, where the Duke of Ormonde (1610-1688 see below) commanded King Charles' royalist forces, who were trying to keep Ireland under royal control not the Catholic Confederation. Running short of money to pay soldiers, Ormonde minted his own siege money:

Siege money Duke of Ormonde 1646. #2653

James Butler, First Duke of Ormonde by William Wissing ca. 1682

Pope Gregory XV sent Archbishop Giovanni Battista Rinuccini as Papal Nuncio to Ireland 1645–1649. To support Catholics, he brought with him arms, ammunition and 150,658 livres tournois (at three livres to an ecu this approximated 50,000 crowns or £12,500).

In 1649 the only remaining parliamentary forces in Ireland resided in Dublin. Cromwell landed there and defeated the royalist Duke of Ormonde at the Battle of Rathmines in 1649. Cromwell then advanced 30 miles north to Drogheda where he massacred inhabitants.

He then took many Catholic garrisons, often with atrocities, like murdering priests and civilians, and destroying towns and food. This

led to mass starvation. Bubonic plague then spread in waves through Ireland. Cromwell's son-in-law, Major-General Henry Ireton (1611–1651), took over from Cromwell in Ireland in 1650 and continued the scorched earth policy that led to famines. Ireton himself died from the plague in 1651.

Royalists lost confidence in the Duke of Ormonde, who fled to France in 1650. Cromwell took the East coast first then all of Ireland by 1652. Guerilla warfare continued for another year. (The Duke of Ormonde would return from exile in France after the restoration of the monarchy in 1660 as Lord Lieutenant of Ireland from 1661 to 1669).

Reports on how many died during Cromwell's brutal war vary from 20% to 40% of the entire Irish population. Reports of total Irish deaths vary from 220,000 to 620,000. Of these 15,000–20,000 died in battle. The rest were civilian casualties from violence, famine or disease.

Cromwell sold 50,000 Irish as indentured laborers in North America and the Caribbean. Most of the Caribbean laborers died before they reached their indenture date. Another estimated 54,000 soldiers who fought for the Confederate Catholic and Royalist forces fled to France and Spain, many as mercenaries.

Cromwell was very vindictive with the Irish after defeating them. The "curse of Cromwell" still hangs over Anglo-Irish relations. After Cromwell died, his son ruled briefly then parliament asked Charles II to rule again in 1660 (called the "restoration").

The coins

Saint Patrick coppers come in two sizes, and rare silver specimens exist:

	Composition	Size mm	Wt. Grains
Small	96% Cu	24.7±1.4	84.2±11.2
Large	96% Cu	28.4±0.5	136±10.5
Silver	80-94% Ag	25.3±0.3	100.1±10.5

Small coppers are around 5.5 grams; large are 8.8 grams. The ratio of the larger to smaller weight is 1.6. In Sidney Martin's book on St. Patrick coinage (see references) there are 194 die combinations of the small coppers, and only 9 of the large coppers. John Griffee, a colonial numismatist, kept a database, showing less than 1,500 small Patricks known today. Martin estimates only 138 large Patricks.

Small Patricks

The obverse (below) shows King David (whom Maris and Breen both say looks like King Charles I), kneeling and playing an Irish harp, looking up at the English crown. Underneath are short thick lines or squiggles for the ground.

Small St. Patrick Obverse.

Some specimens show annulets below including a double annulet looking like the number 8 as in this specimen above. The legend is FLOREAT REX, meaning, "May the King flourish or prosper".

The reverse shows St. Patrick, the ancient Episcopal patron of Ireland standing. Although Catholic, he wears Anglican vestments! Some types show him with a nimbus (halo). He wears a cope, double miter (bishop's hat), and holds a metropolitan cross. Behind him is a church, which varies in style and probably represents **the** church rather than a specific church. He holds out his right hand, either in blessing, or perhaps to drive out undesirable animals.

Below him are the same lines and squiggles for the ground and on the left a menagerie of "vermin", also called the "expulsion diorama", referring to St. Patrick casting out vermin from Ireland.

Small St. Patrick's reverse.

St. Patrick kept a vigil for 40 days on a holy mountain called Croagh Patrick, during which a winged she-devil Caorthannach (also called Corra) attacked him. Purportedly he defeated her by throwing a silver bell at her! He must have had divine aim! He then banished all snakes and toads from Ireland. As Robin Williams would say "Leave! Or I'll say leave again!"

Expulsion Diorama: 1 Corra. 2&3 Varmint/ snakes. 4 Dragon. 5 ?Snake ?Ground. 6 Toad.

In the preceding picture #1 depicts the Corra; #2 is probably a snake; #3 Martin calls a "varmint"; #4 is a dragon, sometimes called a griffin; #5 could be a snake but is probably part of the decoration used to depict the ground; #6 is a toad. The legend reads QVIESCAT PLEBS (May the people be quiet, or may the people rest).

Large St. Patrick Obverse

Large Patricks

Large Patricks do not show the detail of the small Patricks; even uncirculated coins look circulated. Grading is difficult but Martin shows grading standards for small and large Patricks. The obverse is the same as the small except that King David is kneeling on a checkered floor, suggesting he is indoors in a fancy room, rather than outside. The crown is different and King David kneels on a tasseled cushion.

The iconography of King David requires more explanation. King David was a young shepherd who became famous first as a musician then as the slayer of the Jewish enemy Goliath. David became the second King of Israel around 1,000 BCE. The Bible and Quran both discuss David. Christ claimed descent from David. Medieval heralds attributed King David's coat of arms as the harp, identical to that of Ireland. There is also a tradition that the British monarchy is the kingly line of David. Thus, Charles I would have seen himself as the natural King of Ireland and England, descended from King David.

St. Patrick, taken from Messingham's Florelegium 1624

The engraver took the small and large Patrick reverse from an engraving by Gaultier in 1619, shown in Messingham's Florelegium of 1624 (above). The top left angel says, "This is the voice of the Irish", the bottom right scroll reads "Come help us". On the large Patrick, St. Patrick holds a crozier or bishop's crook instead of a metropolitan cross, and a shamrock in his right hand (picture below).

Large St. Patrick reverse.

The shamrock's three leaves were sacred to Druids. St. Patrick may have used them to preach the Holy Trinity to Pagans. The shamrock already symbolized St. Patrick. People wore them on St. Patrick's Day in the 1600s (St. Patrick's Day was and still is 17th March).

On the large copper reverse, people replace the vermin on the left, and the arms of Dublin replace the church on the right. Flames come from the double-towered castles representing the citizen's zeal in defending Dublin. The legend is ECCE GREX (behold the flock, i.e. St. Patrick as a bishop preaching to his flock).

Dublin City Arms. Courtesy Heraldrywiki.

Small Patricks have milled edges, plain edges or edges milled with a central circumferential groove. Large Patricks and silver Patricks have milled edges. Some large and small planchet coppers show a brass splasher by the crown. Dropping molten brass on the planchet, immediately before striking with a drop hammer press, accomplished this. All issues were medal turn.

Who made them, when, why and where?

An excellent question but only partly answerable! Experts have placed their dates of issue at between 1641 and 1680.

Authorities have described their place of issue as Dublin, Oxford, the Tower Mint in London, or even on the European continent. Authorities have described some who issued them as: Nicholas Briot; Peter Blondeau under the Duke of Ormonde; Charles II during his exile in France; private minters in Dublin; and Sir Edward Ford.

The always dogmatic Walter Breen in the Colonial Newsletter in 1968 (see references) said Nicholas Briot made the coppers at the Tower Mint in the 1640s, because they are very similar to a regal copper farthing pattern (Peck 362). Briot was a French mechanical engineer and artist, who immigrated to England, becoming chief engraver to the Royal Mint in 1633. He introduced milled (screw press) coins, but the process was slow and the mint returned to hammer-struck coins. Breen's further evidence is:

- Patrick coins use a martlet (bird without legs) privy mark, but this creature is part of the expulsion diorama, not a privy mark.
- The double arched crown is of similar form to the proof farthing. So is my Fedora hat!
- Gladfelter and Breen say the Royal Mint used a brass splasher on the proof farthing.
- King David looks like King Charles on the farthing.
- Breen interprets the double annulet as 8 saying the date must be 1648. Breen explains away the fact that Briot died in 1646 by saying his subordinate, Edward Wade, used his punches. Robert Vlack, a colonial American coin specialist, also said the 8 meant perhaps 1678.
- Don Taxay, an American numismatist and historian, also claims Patricks are punch linked to Briot's Scottish coins. Briot worked at the Tower Mint 1625–1635, the Edinburgh Mint 1635–1639, and the Tower Mint again 1639–1646. But Briot's estate sold his punches to others who may have used them later.

Breen changed his mind by the time he published his encyclopedia in 1988. He then opined that Briot designed the coppers after Gaultier, and struck them from 1641 to 1642 to pay Royalists forces fighting Cromwell during the Irish Rebellion. Breen supposed that after Charles I's execution the coppers owners hid them, fearing accusations of treason by Parliamentarians. He said in 1662 the coins reappeared in Ireland in commerce.

An exuberance of supposition promotes the coppers as many denominations. The big problem has been the ratio of weights between the large and small Patricks as 1.6. Numismatists have labeled the two sizes as:

- A farthing and a halfpenny
- A halfpenny and a penny
- A halfpenny and a three-farthing piece
- Both as different denominations at different times
- Both as the same denominations at different times. Philip Mossman theorized they struck the larger coppers in the late 1660s realizing only a 21% profit for their coiners before distribution. The coiners wised up in the early 1670s and struck the smaller coppers making an 80% profit. They marketed both coppers as halfpence.

There are a few silver small planchet pieces called shillings, a single large planchet silver piece, and a single gold small planchet piece, labeled as a sovereign. Numismatists seem lost without denominations! If they are not on the coin, they make them up!

But the coins have no clear bullion ratios. They have no denominations, no date and no authority for issue. They look more like medalets. They could have used the splasher for psychological reasons in a medalet, or as an anti-counterfeit device. The coppers are medal turn not coin turn.

The earliest date that mentions Patricks is 1674 quoting "Patricks" as change given during collections at Mass (Martin).

The Royal Yacht *Mary* sank on New Year's Day (25th March 1675). Salvors recovered a single Patrick from her among 273 other coins.

So, they must have made Patricks before 1675. The iconography suggests they were either minted during the Irish Rebellion of 1641, or after the restoration in 1660. It would seem unlikely that no records exist with any mention of the coppers for 20 years from 1641 to 1660+, so 1641 would seem perhaps a little more likely. Patricks circulated in the Isle of Man until the Tynwald Act of 1679 forbade their circulation.

Brian Danforth, who extensively researched the issue, says James Butler (Duke of Ormonde and Lord Lieutenant of Ireland from 1661 to 1669 pictured on page 189) received a royal letter in 1667. This authorized coinage to pay royalist soldiers owed money for fighting Cromwell from 1650 to 1652. This was 15 years after the event. By then 25% of the population had died, and 54,000 soldiers had left the country, many to become mercenaries. Danforth says Ormonde asked Peter Blondeau to coin Patricks from 1667 to 1669. Peter Blondeau was another French engineer and moneyer who reintroduced milled coinage to the English Mint after the restoration.

Sir Edward Ford (1605–1670) was a soldier and inventor, who fought for King Charles I during the Civil War. Although he was a Royalist, his wife was the sister of Major General Henry Ireton (Cromwell's son-in-law). Sir Edward invented a way of coining farthings, in which each coin was different, to prevent forgery (?splashers). He got a patent in Ireland but not England. He died before he made any coins, in 1670. Could he have transferred the right to make these coins to another person? Were they Patricks?

Perhaps the most attractive theory is that these coppers were not coins at all, but medalets. These are similar to today's Alcoholics Anonymous sobriety tokens. Members often carry these as pocket pieces to remind them of their one-year or more of sobriety. Perhaps the small size copper religious tokens were for commoners, the large size for clergy and gentry, and the silver pieces for bishops. Martin discusses this attractive medalet theory at length.

The Catholic Confederation would have been fertile territory for St. Patrick issues from 1642 to 1649. The Confederation passed an Act calling for coinage of halfpence at 90 grains (5.83 grams). But the small Patricks average 5.46 grams and did not conform to the design elements in the Act. If made during the Catholic Confederation, the issues would have remained underground during Cromwell's rule in Ireland (1649 – 1660) until the restoration.

How did Newby get 14,400 small Patricks just before he left for America? If issued as pocket medalets by Royalist sympathizers before or after the restoration, the Catholic Church may have accumulated these in collections at Mass. Fearing Protestant retribution, the Church may have been reluctant to use them and accumulated them. Newby may have known this and bought them at a significant discount.

On the other hand, if Newby knew Catholics kept these coins, he may not have wanted to have broadcast their iconography. Catholics persecuted Quakers. Newby himself might have accumulated them while a shopkeeper in Dublin and been unable to get rid of them. Why would he have spent £30 or even a discounted £10 on £30 of halfpennies that might have been difficult to get rid of in America?

Quakers and others dispersed 14,400 small Patricks in West Jersey and elsewhere. Around 1,500 still survive today – a delight for numismatists! Who knows whether even Newby knew the who, when and where of the coppers' minting!

References

Anton, W.T. and Hodder, M., *The Mark Newbie Home-Site*. Colonial Newsletter. December 1989 Sequential pages 1111 – 1117.
Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American Coins*. 2009. Whitman Publishing, Atlanta , GA.
Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins.* 1988 Doubleday, NY.
Breen, W., *Comment on St. Patrick Halfpence and Farthings*. Colonial Newsletter. April 1968, Sequential pages 214 – 217.
Crosby, S. *The Early Coins of America*. Published by the Author Boston 1875.
Gladfelter, D.D.,Mark *Newby: Quaker Pioneer*. Token and Medal Society Journal October 1974, pp166 – 176. (Also reproduced in Colonial Newsletter December 1989 sequential pages 1118 – 1127.
Maris, E., *Coins of New Jersey*. Printed by William Bellows, Philadelphia, 1881.
Martin, S., Saint Patrick Coinage. C4 Publications The Colonial Coin Collectors Club. www.colonialcoins.org 2018
Snyder, J.P., *The Story of New Jersey's Civil Boundaries 1608 – 1968*. Bureau of Geology and Topography, Trenton, New Jersey 1969. state.nj.us.
Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*.1947, 1970 and 1073. Whitman Publishing LLC Pelham, AL 35124
https://www.luciastclairrobson.com/blog/the-tuesday-club/
https://www.heraldry-wiki.com/heraldrywiki/index.php?title=File:Dublin3.jpg
http://www.waymarking.com/gallery/image.aspx?f=1&guid=9fd03db8-8162-457e-aac6-1862cc8956ec
By Willem Wissing
https://commons.wikimedia.org/w/index.php?curid=6365489
By Sir Anthony Van Dyck (1599 - 1641)Details of artist on Google Art Project - BQHR9te2WWtyOA at Google Cultural Institute maximum zoom level, Public Domain,
https://commons.wikimedia.org/w/index.php?curid=22126913

353

MARK NEWBY SMALL ST. PATRICK COPPER. MARTIN 7A/CB.1; 26MM, 7.03 GRAMS EF 9 - 20 KNOWN

651

Mark Newby Large St. Patrick Copper. Martin 4/E; 29mm, 9.52 Grams AVF 20 Known

CHAPTER SEVENTEEN
ROCHE'S VOCE POPULI COPPERS

The largest reference on American colonial coins, the Colonial Newsletter (CNL) ran to 4,705 pages. In 2018 it became the Journal of Early American Numismatics (JEAN). Kenneth Bressett, Red Book Editor for 40 years, wrote the very first CNL entry in 1960. The subject? Voce Populi coppers!

We classify 1700s colonial coppers in the following way:

- Regal English or Irish, made by the Royal Mint
- Imitation English or Irish coppers copying regal coppers in devices and legends. Americans, English and Irish all made these imitations
- Evasion coppers, designed to evade criminal prosecution in England and Ireland by copying a regal copper but applying different legends or devices
- Cast coppers, often made in America

1741 English or Irish Imitation Irish halfpenny 6.90 grams

#2119

1696 Regal Irish Halfpenny 6.26 grams. #1846

The first coin above belongs to the imitation class. The second coin shown for comparison is a real regal Irish halfpenny (though the monarch is different).

Voce Populi (VP) coppers belong to the evasion class as they use a different legend VOCE POPULI, and also changed the reverse device from a crowned harp to an allegory of Hibernia.

Between 1754 and 1770 England struck no English regal halfpennies. The Royal Mint struck Irish regal halfpence in 1692, 1693, 1694, and 1696; then none until 1736–1755 (except for Wood's Hibernia coppers struck from 1722 to 1724 under a royal patent). Thus, during a 64-year period between 1696 and 1760, the Mint stuck Irish coppers for only 23 years.

People need money to buy things, and countries need to mint enough circulating coinage to grease the wheels of the economy. England treated the Irish, in Breen's words, as "little more than pack animals". In 1760, the year George II died, England minted regal Irish coppers, but did not deliver them for two years!

The Irish economy begged for coppers. Enter one John Roche, a Dublin button maker for the British Army. He struck these tokens illicitly starting in 1760 as a private speculation. The crown legislated Regal Irish halfpence at 9.2 to 10.8 grams, though they often weighed less. My VPs weigh on average 6.92 grams. Roche used different legends, evading counterfeit laws. But only by a hair thin margin!

Roche made military buttons, shoe buckles and other hardware in Usher's Quay, Dublin, and lived on King Street, Dublin. He also produced a medal of Jonathan Swift in 1738, and a copy of an Admiral Vernon medal. He died in October 1760. Historians suspect that others took over minting his coinage until 1762.

One possibility was Edward Barry, whom authorities twice placed in the pillory, and once imprisoned in Newgate prison, London, for producing VP coppers.

Another possibility was Francis McMinn, of Donaghadee, County Down, Ireland. Mike Ringo, a colonial numismatist, noted a similarity between VPs and a McMinn two pence token. McMinn often backdated his tokens to the 1720s and 1730s, to replace the dwindling supplies ofWoods Hibernia tokens. Backdating was a small protection against conviction for counterfeiting. McMinn may also have produced VPs.

The coppers circulated like crazy until the English ramped up Irish regal halfpence production again in 1766. When VPs became common enough, speculators shipped them to America as "Casks of Hardware", where they circulated somewhat around 1767 to 1776.

Early American references on colonial coins did not mention Voce Populi coinage. Neither Hickcox in 1858, nor Crosby in 1875 (see references) referred to Voce Populi. In 1899 Herbert Grueber wrote a *Handbook of Coins of Great Britain and Ireland in the British Museum*. He first mentioned that John Roche shipped VPs to America.

Early American numismatists likely treated VPs as evasion coppers (called "Bungtowns" back then). Halfpence formed the backbone of everyday money in the northeast colonies. But early numismatists did not collect foreign coppers that circulated in the colonies, only those coppers related to America like state coppers, Wood's coppers, Fugios, Washington coppers, etc.

This changed in 1876 when Leavitt & Co. auctioned the Loren Parmelee Collection. They listed VPs under a section entitled "American Colonial, State Coins, Tokens". The Chapman Brothers' Bushnell sale also included VPs, described as "Bungtowns" in Pennsylvania. I list below the sequence of writings about VPs.

1905 Philip Nelson, an English Physician from Liverpool, wrote *The coinage of Ireland in copper, tin and pewter, 1460-1826*. In it he described VPs, listing two varieties of farthings and 12 varieties of halfpence.

1947 the first Red Book listed VPs a halfpenny for $2.50 and a farthing for $9 in Fine condition.

1965 Robert Vlack wrote *Early American Coins*, in which he listed five halfpennies and two farthings.

1969 Dowle and Finn wrote *The Guide Book to the Coinage of Ireland* mentioning that many VPs "found their way to the United States".

1976 Jerry Zelinka listed 12 obverse and 11 reverse halfpenny dies in 16 pairings in the Colonial Newsletter. He used Arabic numerals for the obverse and letters for the reverse, a die listing format started by Sylvester Crosby in 1875. Zelinka left the numbers 9 to 12 and the letters G to J for any new varieties discovered.

2012 Coin World magazine announced a new variety, which the collecting fraternity labeled Nelson 17 with Zelinka dies17-A. So much for the numbers Zelinka left for new varieties!

The coins

The obverse shows three main types of head:

Boyish head, from the VP farthing, presumed to represent Bonnie Prince Charlie, the Young Pretender (courtesy of Wikipedia)

Long bust (some have a P in the field), Neslon-11 presumed to represent the Old Pretender (courtesy National Gallery of Scotland 1727)

Short bust, (Nelson-2), which to me looks like a jutting jaw. It is possible this could representJohn Hely-Hutchinson (1724–1794). His original last 198 name was Hely, but when he married, he took his

wife's name Hutchinson. How chivalrous! Men today should do the same!

A brilliant lawyer, debater and statesman, Hely-Hutchinson also became a member of the Royal Society. The King appointed him Privy Counselor, Secretary of State for Ireland, and first Earl of Donoughmore. In 1774 he became Provost of Dublin College.

As an Irish evasion copper, the head should have resembled George II or George III, but the Georges were unpopular in Ireland because they were Protestant. Instead, the Irish rooted for the Catholic Stuart line of "James III" or his son "Bonnie Prince Charlie". Protestant supporters of the King called them the Old Pretender and the Young Pretender (more about them later).

Voce Populi means "by the voice of the people". Walter Breen in his encyclopedia says it refers to the Irish wanting a Catholic King or home rule. Perhaps it also meant the Irish were crying out for coins!

Four of the 17 Nelson varieties have a large P on the obverse. This likely stood for Princeps, (Latin for Prince) referring to the Old or Young Pretenders. Irish Catholics supported them as their rightful Kings, not Pretenders. So, P would not stand for Pretender! P did not stand for Provost, as Hely-Hutchinson became Provost 14 years after Roche struck the coins.

Reverse of Voce Populi (Neslon-2)

The reverse (above) shows an allegory of Hibernia, which imitates Britannia. But instead of sitting beside a Union Jack shield with a trident in her left hand, she sits beside a harp with a spear in her left hand. Hibernia also holds a shamrock in her right hand. As shown on page 197, the Irish halfpenny regal reverse at the time was a crowned harp of usually 12 strings. The first allegory of Hibernia appeared on the Limerick Siege halfpenny in 1691:

Limerick Siege Halfpenny 1691. #2933

William Wood had also used a seated allegory of Hibernia next to a harp, but she held a palm rather than a shamrock. In the Catholic religion a palm signified victory in the war of the spirit against the flesh, especially for martyrs.

The date on VPs is 1760. However, people have written much about 1700 coppers. Interestingly, when Philip Nelson wrote about Irish copper coinage in 1905, he had never seen a 1700 VP. Nelson identified 12 varieties of halfpence and two varieties of farthings. Vlack, in the Colonial Newsletter, knew of only five 1700-dated Nelson-6s. But where did they come from? The possibilities are:

- Struck in 1700 — unlikely!
- Die engraving error using 0 not 6. The traditional story was that the coiner noticed this and engraved a small loop onto the 0 to make it into a 6, like the coin opposite.
- Die engraving error using broken 6 punch.
- A die where the stem of the 6 was filled.
- A lapped 1760 coin die wearing away the tail of the 6.
- Post 1905 restrikes, if so, who has the dies?!
- Post 1905 altered coins – thought the most likely.

The Nelson-6 with the date 1760 has the Zelinka reverse die D. The Nelson-6a dated 1700 uses the Zelinka reverse die Da, but the same obverse.

Similar problems have appeared in other VPs. Zelinka reverse B (Nelson-2 opposite) shows a tiny tail, which can look like 1700. The same happens on the Zelinka reverse die F (Nelson-7). If it looks like 1700 some have labeled it Zelinka Fa.

Roche and others struck the coins on cast planchets and on rolled blanks. Cast coins exist (probably contemporary copies, not by Roche). The short bust (jutting jaw) halfpennies range from 5.64 to 7.8 grams, and the long bust (probably the Old Pretender) range from 8.34 to 9.98 grams. Halfpennies measure 26 to 28 mm. The farthings weigh around 3.78 grams and measure 20 to 22 mm.

The remaining problem is: did VPs circulate in America? Ken Bressett assumed American circulation would have been just like any other evasion copper, British or Irish. Collectors today collect imitation and evasion coppers from England and Ireland as they likely circulated during colonial times. VPs circulated in Ireland, but Irish immigrants to America may have brought VPs with them. There are three VP ground finds: one in New York State, one in Maryland and one likely from the *Faithful Steward.*

1700s Merchant ship similar to Faithful Steward

The *Faithful Steward* left Derry, Ireland in 1785 with 270 passengers and crew for Philadelphia, carrying 400 barrels of copper coins. She ran aground on a shoal off Cape Henlopen, at the entrance of Delaware Bay. Only 68 people survived. The ship broke up, disgorging her coins which washed up on the beach, later called coin beach. A lucky treasure seeker found a VP on the beach.

Dowle and Finn who wrote *The Guide Book to the Coinage of Ireland*, say that many VPs like other Irish coins and tokens "found their way to the United States".

Ways of collecting VPs are as follows:

- Single example.
- One short bust (jutting jaw) and one long bust.
- VOOE, Short bust, P below, P in front, and any coin that looks like a 1700.
- The same plus a farthing. Only the large letter farthing is collectable; the small letter farthing is a five-figure rarity.
- By Nelson number. But Nelson-5, 6a, 7, 14, 16 and 17 are all rare with populations under 6.

After a display of Voce Populi coins is a table of the different varieties of VPs by Nelson number and Zelinka obverse and reverse dies.

After that are some notes on the Old Pretender and the Young Pretender, which I call "The Story of Jacobitism". This includes a selection of gun money — not really American colonial coins but part of the story of the Pretenders.

References

Bowers, Q. David, Whitman Encyclopedia of Colonial and Early American Coins. 2009. Whitman Publishing, Atlanta , GA.

Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins.* 1988 Doubleday, NY.

Crosby, S. *The Early Coins of America.* Published by the Author Boston 1875.

Dowle,A., and Finn, P, Guidebook to the Coinage of Ireland from 995AD to the Present Day. Durst 1969.

Hickcox, J., *An Historical Account of American Coinage.* Albany and London 1858.

Nelson, P., *The Coinage of Ireland in Copper, Tin, and Pewter, 1460 – 1826.* . W.M. Murphy, Liverpool. 1905.

Vlack, R.A., *Early American Coins.* Windsor Research Publications, New York 1965.

Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins.* 1947, 1970 and 1073. Whitman Publishing LLC Pelham, AL 35124

Zelinka, J., *The Enigmatic Voce Populi Halfpenny of 1760.* Colonial Newsletter. October 1976 Pages 555 – 565.

By Wenceslaus Hollar - Artwork from University of Toronto Wenceslaus Hollar Digital CollectionScanned by University of TorontoHigh-resolution version extracted using custom tool by User:Dcoetzee, Public Domain, https://commons.wikimedia.org/w/index.php?curid=6233667

http://www.bl.uk/onlinegallery/onlineex/crace/p/007000000000008u00064000.html

By Allan Ramsay - HistoricalPortraits.com, Public Domain, https://commons.wikimedia.org/w/index.php?curid=6694162

https://en.wikipedia.org/wiki/George_II_of_Great_Britain#/media/File:Kneller_-_George_II_when_Prince_of_Wales.png

Public Domain, https://en.wikipedia.org/w/index.php?curid=26667424

https://ids.si.edu/ids/deliveryService?id=CHSDM-F713AFF359342-000001

https://www.pcgs.com/coinfacts/category/colonials/pre-1776-private-regional-issues/voce-populi-coins-1760/811

https://en.wikipedia.org/wiki/John_Hely-Hutchinson_(secretary_of_state)#/media/File:John_Hely-Hutchinson.jpg

#1001

VOCE POPULI FARTHING 1760 NELSON-1; 21MM, 3.08 GRAMS VF

#1447

VOCE POPULI HALFPENNY 1760 NELSON-2; 27.5MM, 7.34 GRAMS RIM DING AU

#737

Voce Populi Halfpenny 1760 Nelson-3; 27mm, 6.64 Grams VF

#287

VOCE POPULI HALFPENNY 1760 NELSON-9; 26.5MM,5.86 GRAMS F

#1448

Voce Populi Halfpenny 1760 Nelson-11; 28mm, 7.45 Grams VF

#286

VOCE POPULI HALFPENNY 1760 NELSON-12; 28MM, 7.32 GRAMS VF

#1446

VOCE POPULI HALFPENNY 1760 NELSON-13; 27MM PCGS VF 25

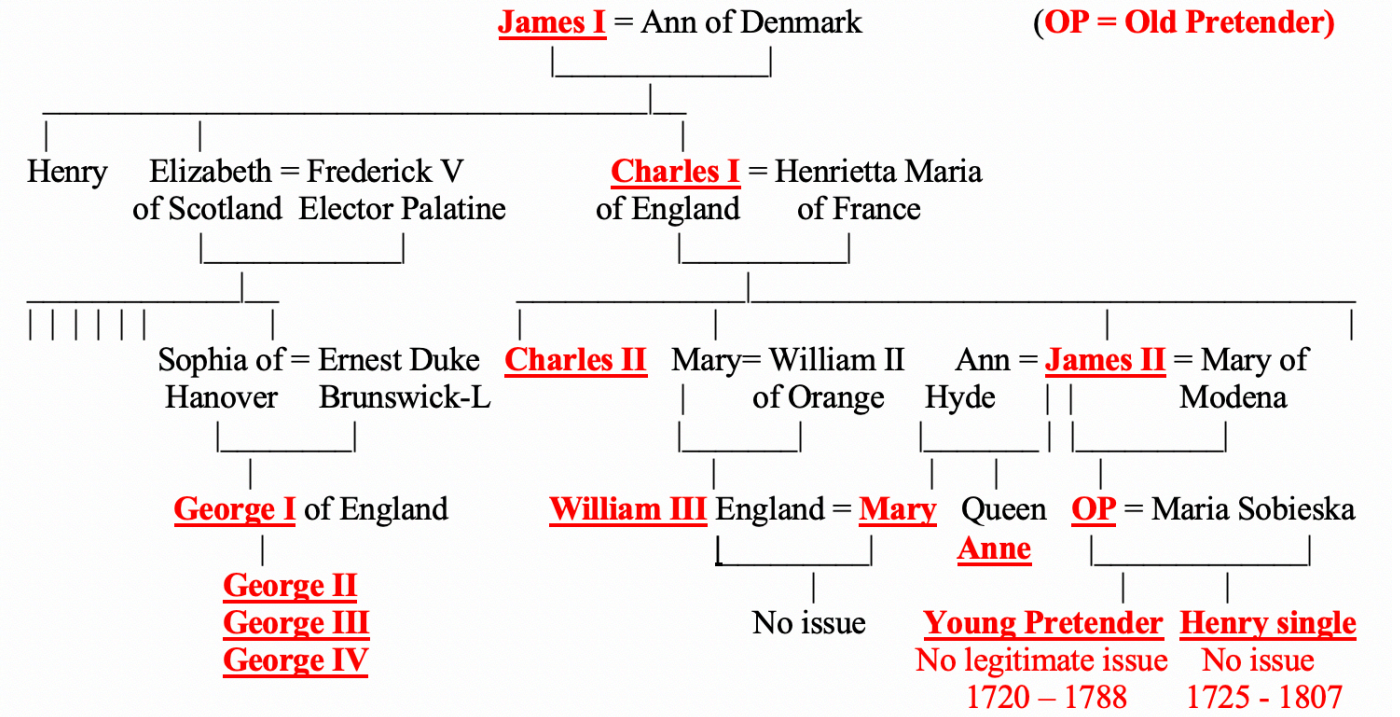
ZELINKA OBVERSES & REVERSES CHART WITH NELSON & BREEN NUMBERS

BREEN Number	NELSON Number	ZELINKA Marriage	ZELINKA OBV	OBVERSE DETAILS	RARITY Zelinka	RARITY PCGS	Head Types	Possible People
220	1	A	1	Boyish head VOCE ✿	13 to 30	10 to 13	Boyish	Young Pretender
221	4	A	2	Older head VOCE +	>1,250	201 to 500	Short bust	? Hely-Hutchinson
222	15	A	3	Long nose slanting forehead VOCE x	76 to 200	76 to 200	Long bust	Old Pretender
222	8	C	3		13 to 30	<16	Long bust	Old Pretender
222	5	A	4	Jutting jaw VOCE +	2 to 3	Fake	Short bust	? Hely-Hutchinson
226	2	B	4		201 to 500	201 to 500	Short bust	? Hely-Hutchinson
none	16	C	5	Jutting jaw • VOCE	2 to 3	5 known	Short bust	? Hely-Hutchinson
230	6	D	5		31 to 75	31 to 75	Short bust	? Hely-Hutchinson
229	6a	Da	5		5	Not listed	Short bust	? Hely-Hutchinson
223	9	C	6	Jutting jaw VOCE +	>1,250	201 to 500	Short bust	? Hely-Hutchinson
227	3	E	7	Sharp featured head VOOE	201 to 500	201 to 500	Short bust	? Hely-Hutchinson
225	7	F	8	Jutting jaw • VOCE	4 to 12	13 to 30	Short bust	? Hely-Hutchinson
231	10	K	13	Long turret head VOCE	31 to 75	31 to 75	Long bust	Old Pretender
233	11	L	14	Long head P/P below •VOCE•	210 to 500	76 to 200	P	Old Pretender
233	13	M	14		501 to 1,250	76 to 200	P	Old Pretender
232	12	N	15	Long head P right field VOCE •	501 to 1,250	201 to 500	P	Old Pretender
233	14	O	16	Hare lip long head P below • VOCE	4 to 12	13 to 30	P	Old Pretender
none	17	A	17	Long head similar to 2	1	Not listed	Long bust	Old Pretender

ZELINKA

REV	REVERSE DETAILS	Harp strings	Date	Notes
A	HIBER ☺ N /IA ++	8	J760	
B	•HIBBE ☺ R /NIA •	7	1760	6 tail added
C	H/HIBER ☺ N /IA ++	8	1760	
D	HIBE ☺ R /NIA•	8	1760	
Da			1700	1700
E	•HIBE ☺ R / NIA •	8	1760	
F	HIBF ☺ R / NIA ••	9	1760	6 tail added
K	HIBE ☺ R /NIA ✿✿	6	J760	
L	H/HIBER ☺ N / IA ✿✿	6	J760	
M	HIB ☺ ER /NIA ✿✿	6	J760	
N	HIBER ☺ N /IA ✿✿	6	J760	tiny 6, exergue touches 7
O	HIBER ☺ N /IA ✿✿	6	J760	

THE STORY OF JACOBITISM



Family Tree of Stuarts and Hanoverians

A list of Stuarts follows:

James I ruled 1603–1625
Charles I ruled 1625–1649
(Interregnum)
Charles II ruled 1660–1685
James II ruled 1685–1688
Old Pretender, James Francis Edward Stuart ("James III") lived 1688–1766
Young Pretender, Charles Edward Stuart ("Bonnie Prince Charlie," and "Charles III") lived 1720–1788.
"**Henry IX**" Cardinal Duke of York 1725–1807

A brief review: The reformation in England took place under the reign of Henry VIII (1509–1547). He introduced Protestantism in 1532. His son Edward VI (1547–1553) was also Protestant, but his daughter Mary I (1553–1558) tried to restore England to Catholicism. She burnt 300 dissenters at the stake resulting in her agnomen Bloody Mary. Elizabeth I ruled as a Protestant 1558–1603. Though many still practiced Catholicism, the country had been Protestant for 70 years when James I, the first Stuart, came to the throne in 1603. He was a Protestant. He organized the famous King James version of the English bible, and executed

Catholics involved in the Gunpowder Plot to blow up the Houses of Parliament.

Charles I, married a Catholic, Henrietta Maria of France. She refused to take part in Anglican ceremonies and brought up her children as Catholics. The English Puritans mistrusted Charles I's religious views. When Protestants beheaded him, the future Charles II and James II fled to the Catholic court of Louis XIV of France.

In 1660 parliament asked Charles II to resume the throne. Two years later he married a Catholic Portuguese noble, Catherine of Braganza. Shockingly, Charles' brother, the future James II, married a commoner, Charles II's chief minister's daughter, Anne Hyde. She died in 1671. Around 1668–1669 James converted to Catholicism, though he kept it secret for many years.

Although Charles II converted to Catholicism on his death bed, he realized how it impacted politics and opposed James' conversion to Catholicism. He insisted that James' daughters, Mary and Anne, be raised as Protestants. But Charles did not object when James married another Catholic, Mary of Modena, in 1673.

Parliament grew weary of Catholic threats and passed the Test Act in 1673, under which all civil and military officials had to take an oath renouncing Catholicism. This included the Catholic doctrine of transubstantiation (the view that consecrated bread

and wine actually become the real blood and flesh of Christ). James refused to take the oath exposing him as a Catholic.

So, in 1679 parliament passed the Exclusion Bill to exclude James II from the line of succession. How did Charles II deal with that? He dissolved parliament! This led to the two-party English system: Protestant Whigs, who supported the Exclusion Bill, and pro-royalist Tories, who opposed it.

Charles II died of a stroke in 1685. He converted to Catholicism on his deathbed. His only surviving successor was his 52-year-old brother James II who took over as king.

As king, James II gave special dispensation for Catholics to command army regiments without taking the Test Act. When parliament objected what did he do? He closed parliament! He also put Catholics in many high offices, alienating Protestants.

In 1687 he issued a Declaration of Indulgence which negated punitive laws against Catholics. He then insisted Anglican clergy read it in all their churches. Again, in April 1688 James ordered Anglican clergy to read the same Declaration in all Anglican churches. When the Archbishop of Canterbury and seven other bishops requested a reconsideration, James had them all arrested. To say that James rode roughshod over English Anglican sensibilities would be an understatement.

In June 1687, James' new Catholic wife gave birth to their first child, James Francis Edward Stuart. Some even believed the king had slipped an impostor into the Queen's bed in a warming pan to provide a Catholic successor!

Well, another Catholic was just too much! So, seven Protestant nobles invited James' Protestant daughter, Mary and her husband to replace James II. Her husband was the Protestant William of Orange, Stadt holder of Holland i.e. a cousin. He was also the son of James' sister Mary. Complicated!

When William arrived with his army, James threw the Great Seal of the Realm into the River Thames, and fled with his family to Louis XIV's protection in France. Parliament declared that by throwing away the Great Seal, James had ipso facto relinquished his throne to his daughter Mary. Parliament cemented this by passing the Bill of Rights prohibiting any Catholic from becoming monarch of England. However, many Catholics supporters cited the divine right of kings, which meant James was still king.

Louis XIV (right) greets James II (left) 1689.

In March 1689 the Catholic French King Louis XIV helped James II land in Ireland. The Irish wanted home rule, Catholicism, and to own their own lands. They saw James II as their rightful Catholic king.

The Irish Catholic upper classes had lost their lands after Cromwell's conquest, and they lost the right to hold public office, run their own parliament and to practice Catholicism.

After the Glorious revolution in 1688, Richard Talbot, the First Earl of Tyrconnel and Lord Deputy of Ireland, raised a Jacobite army. By 1690 he controlled all Ireland except Ulster (Northern Ireland). His army consisted of Irish Catholics, and Scottish Presbyterians (who also wanted independence from the Church of England). Louis XIV sent across 6,000 French troops under the French General Lauzun. The Jacobites had 23,500 troops, including experienced cavalry. But most of the troops were impressed not voluntary, and poorly trained, and had obsolete matchlock muskets.

But Ulster Protestants (from England and Scotland) joined William III.

James II 1685 in General's uniform.

James II paid his soldiers with copper token coinage called gun money (so-called because he made some by melting cannon, though he also melted church bells). He issued this by year and by month, promising orderly redemption in silver with interest, after he retook his throne. The first issue were large sized sixpences, shillings and half-crowns. The second issue were small sized shillings, half-crowns and crowns. They also issued rare pieces in pewter, silver and gold, and pieces dated 1691 from Limerick.

Irish Gun Money First Issue Shilling Aug 1689

American colonials did not use gun money any more than any other foreign circulating coppers. But America became the dumping ground for many unwanted coppers from England and Ireland, including Voce Populi, Wood's Hibernia, St. Patricks, counterfeit English and Irish coppers, and gun money. Colonial Williamsburg has documented ground finds of gun money.

Gun money continued circulating in Ireland until the very early 1700s. As I have a few pieces, I thought I would insert these into this section as they relate to James II's attempts to retake his throne.

The English troops were better trained than the Irish, and they had the latest flint-lock muskets. They already had 20,000 troops stationed in Ireland in 1689. In June 1690 William III arrived with 16,000 more, making 36,000. He took command of all English troops. James II commanded all Jacobite Catholic troops.

The English and Jacobite armies met at the Battle of Boyne on July 1st, 1690. One delicate point: William wanted to avoid risking the life his father-in-law, James II (see family tree). The Jacobites performed poorly and retreated. They became so demoralized they even abandoned Dublin. The final Battle of Aughrim on July 12th sealed the victory for William. To this day, the Orange Order in Northern Ireland celebrate 12th July each year.

Battle of Boyne July 1st, 1690.

Under the Treaty of Limerick, William offered full pardons to Jacobite soldiers, and allowed land owners to keep their lands if they swore allegiance to William within two years. Most landowners seemed more interested in their religious affiliation than their lands and refused! William did not pardon Jacobite leaders. James II hightailed it back to France enraging his Irish supporters, who called him "Seamus an Chaca", Irish for "James the shit".

After Louis XIV negotiated peace with England in 1697 (ending the War of the Grand Alliance with the Treaty of Ryswick) his support for James waned. James died in 1701 of a cerebral hemorrhage. The year after James II died, his younger daughter, Anne (brought up Protestant) succeeded to the English throne. The Catholic Louis XIV then recognized James II's son James Francis Edward as the rightful King of England and Ireland calling him James III. Protestants called him the Old Pretender.

But this was not the end of Jacobite uprisings. Hope sprung eternal that Catholicism would replace Protestantism in England. In 1708 the French made another abortive trip with the Old Pretender to Scotland, but the English navy drove them away before they could even land.

In 1715 John Erskine, the Sixth Earl of Mar, raised a Jacobite army in Scotland. His 12,000 Jacobites fought 6,000 English government forces to a draw at the Battle of Sheriffmuir in Scotland in November. The Old Pretender arrived after the battle, hung around for three months then left again for France.

Three years later the Old Pretender (James III) married Maria Clementina Sobieska. In 1720 they had a son Charles Edward Stuart (The Young Pretender, Charles III, shown opposite).

In 1745 the Young Pretender came to Scotland. His charm and daring won over the apathetic Scottish Lowlands (mostly Protestants), and he won the Battle at Prestonpans (outside Edinburgh) in September. They called him "Bonnie Prince Charlie". He then marched with an army of 6,000 into England where he won the Battle of Falkirk in January 1746. Three months later the Duke of Cumberland (King George II's son) crushed the Jacobite army at the brutal Battle of Culloden near Inverness.

Bonnie Prince Charlie had ignored the advice of his general (Lord George Murray) not to fight on open flat ground. Cumberland directed withering musket fire and grapeshot from cannons, which slaughtered the Jacobites. The Jacobite army of 6,000 suffered 40% casualties. The British army of 8,000 suffered 15% casualties. A 1964 movie entitled "Culloden" by Peter Watkins, which you can see on YouTube, lays out the savagery.

The romanticized story continued. The English government hunted down and executed rebels. Bonnie Prince Charlie hid in the Scottish moors. No locals betrayed him despite a £30,000 bounty. He escaped to France in September 1746. That was the end of Jacobitism.

Bonnie Prince Charlie by Allan Ramsay 1745

In 1750 the Young Pretender visited London incognito pretending to be Protestant, to see if he could regain his throne as a Protestant! The ruse failed, because of the lack of publicity. He returned to France where he died in 1788, like so many Stuarts, from a stroke.

Bonnie Prince Charlie did have a brother, Cardinal Henry of York, who outlived him until 1807. He styled himself as "Henry IX". He was the fourth and final Jacobite heir, but never fought for the throne. His full name was Henry Benedict Thomas Edward Maria Clement Francis Xavier Stuart! Of course, he never really was the Duke of York, that was just a title his father "James III" (the Old Pretender) bestowed upon him. Likewise, Charles III and Henry IX were never kings, but simply styled themselves as kings with the ordinals.

Henry was born in Italy in 1725 and died there in 1807. He joined the priesthood and never married. The Pope made him Cardinal. His Catholic sinecures yielded him £40,000. He lost his French sinecures during the French Revolution. He died surrounded by handsome clerics in his Episcopal palace in Frascati. Historians presume he was a homosexual. A medal of him is shown on page 214.

Copper medal by E. Hamerani showing the birth of the Young Pretender 1720. The obverse shows the conjoined busts of James III, and Maria Clementina. The reverse shows Providence holding a child in her arms pointing to the Globe. The exergue says Charles Prince of Wales born last day of 1720 (March 24th)#2286

Gun money Regular Issues:

First Issue
Sixpence June 1689 to May 1690
Shilling July 1689 to April 1690
Half-crown July 1689 to May 1690

Second Issue
Shilling April 1690 to September 1690
Half-crown April 1690 to August 1690
Crown Equestrian James II 1690 (no months specified)

Limerick Issue
The Jacobites' last gasp was Limerick, Ireland, where they made more siege money in 1691. James II had long since deserted them, and the promise to pay silver later for the gun money had disappeared. Most Limerick halfpence are struck over gun money pieces. The coins portrayed the very first allegory of Hibernia. She looked like Britannia only with a harp instead of a shield with the Union Jack (see opposite, courtesy of Heritage Auctions, HA.com). She holds a cross, later she will hold a shamrock.

Overleaf, the medal's reverse legend is, "Not the will of man but the desire of God." The gun money crown's reverse legend is CHRISTO VICTORE TRIVMPHO (A victory of Christ's triumph).

References
By Jan van Huchtenburgh - www.rijksmuseum.nl: Home Info, Pic, Public Domain, https://commons.wikimedia.org/w/index.php?curid=3955986
https://en.wikipedia.org/wiki/James_Francis_Edward_Stuart
https://www.britannica.com/biography/James-Edward-the-Old-Pretender
https://www.britannica.com/biography/Charles-Edward-the-Young-Pretender
https://en.wikipedia.org/wiki/Charles_Edward_Stuart
By Allan Ramsay - nationalgalleries.org, Public Domain, https://commons.wikimedia.org/w/index.php?curid=31304144
By Nicolas Langlois (1640-1703) - Paris, Bibliothèque Nationale de France, via https://www.pinterest.com/pin/523754631645119141/, Public Domain, https://commons.wikimedia.org/w/index.php?curid=49864850
https://en.wikipedia.org/wiki/James_II_of_England#/media/File:James_II_(1685).jpg
https://en.wikipedia.org/wiki/James_II_of_England
movie about bonnie prince Charlie
https://www.coinbooks.org/v21/esylum_v21n07a04.html
Culloden by Peter Watkins, 1964 movie on YouTube

2923

Bonnie Prince Charlie Death 1788. "Henry IX" Cardinal Silver Medal. Eimer 823; 53mm, 56.47 Grams UNC

#1005

IRISH GUN MONEY 1ST ISSUE SHILLING AUGUST 1689. KM-94; 25.5MM, 6.49 GRAMS EF

1003

Irish Gun Money Ist Issue Half Crown, April 1690. KM-95; 32.5mm, 12.58 Grams EF

#1006

IRISH GUN MONEY 2ND ISSUE SHILLING, MAY 1690. KM-100; 23.5MM, 5.33 GRAMS EF

#1004

IRISH GUN MONEY 2ND ISSUE HALF CROWN, JUNE 1690. KM-101; 29MM, 11.75 GRAMS EF

#1002

IRISH GUN MONEY 2ND ISSUE CROWN, 1690. KM-1031; 33MM, 13.77 GRAMS VF

2933

1691 Limerick Besieged Halfpenny. First Allegory of Hibernia. S-6594. NGC XF 45

CHAPTER EIGHTEEN

PITT TOKENS, RHODE ISLAND SHIP MEDALS AND BAR COPPERS.

When Catholic France lost its attempt to put James II back on the English throne in 1691, they planned to invade England. England sentiment was Protestant. A large French fleet set sail in 1692. England and Holland intercepted them. At the Battle of La Hogue, 120 Dutch and English ships chased France's fleet of 80 ships back into La Hogue harbor, ending the threat of invading England.

In North America a parallel war started in 1688 between British North America and New France. This centered on the Iroquois Indians and their control of land and trade.

This Great Imperial War lasted more than a century, ending with the Battle of Trafalgar in 1805 when the English defeated the French.

The French and Indian Wars were part of this Great Imperial War, or War of Empires, also called dynastic wars. There were four of them; we call the last, **THE** French and Indian War:

- **King William's War** 1688-1697. The European war was the **War of the Grand Alliance**, ending with the Treaty of Ryswick in 1697. Louis XIV of France fought a European coalition of Holland, Spain, the Holy Roman Empire and England for dominance in Europe.
- **Queen Anne's War** 1702-1713. In Europe they called it the **War of the Spanish Succession**, ending with the Treaty of Utrecht in 1713. This started when Charles II of Spain died childless. French King Louis XIV's grandson Philip, as next in line for the Spanish throne, threatened the European balance of power by uniting France and Spain. The French, with Bourbon Spain fought England, Holy Roman Empire, Holland and Habsburg Spain. It ended with the Treaty of Utrecht in 1713. Philip renounced claims to French succession, Spain ceded the Spanish (Catholic) Netherlands. The English displaced the Dutch as the leading commercial power in Asia.
- **King George's War (including the War of Jenkin's Ear)** 1744-1748. In Europe they called it the **War of Austrian Succession**, ending with the Treaty of Aix-la-Chapelle in 1748. When the Austrian, Charles VI, died, his daughter Maria Theresa should have inherited her father's powerful Habsburg crowns in Austria and Hungary. But France and Prussia objected, saying a woman could not inherit such crowns. France and Prussia fought the Habsburgs, England and Holland. The Treaty of Aix-la-Chapelle in 1748 changed little except it allowed Prussia to control Silesia (modern day Poland and Czech Republic) but not much else.
- **THE French and Indian War** 1754-1763, called the **Seven Years War** in Europe. It started there in 1756, ending with the Treaty of Paris in 1763. France, Austria and Spain fought Great Britain and Prussia to curtail the ascendancy of Britain and Prussia. After the Treaty of Paris in 1763 France ceded Louisiana to Spain, and Canada to England. The French kept Guadeloupe and Martinique. Spain lost Florida to Great Britain. Britain effectively took over India, squeezing out the French.

After the Seven Years War, Britain's national debt doubled to £122 million, while her GDP approximated £75 million. National debt to GDP ratio was 1.63 (in US in early 2020 it was 1.2). England still had 10,000 soldiers stationed in America. In 1765 George Grenville, Chancellor of the Exchequer for King George III, introduced the Stamp Act to help pay down Britain's debt. The Act required many printed materials in the colonies be produced on stamped paper produced in London, carrying an embossed revenue stamp. Colonists thus had to pay a tax for each sheet of paper for newspapers, pamphlets and almanacs. Some colonists felt England was sabotaging colonial publishers critical of the British government.

After the Act, Massachusetts formed a radical secret society, the Sons of Liberty, which spread to other colonies. They later linked the colonies against the British Parliament. The Sons of Liberty later joined more formal groups like the Committee of Safety during the American Revolution.

New York organized the Friends of Liberty and Trade. Colonists held a Stamp Act Congress in New York City in October 1765. They declared the Act extended British jurisdiction beyond former limits and had a "manifest tendency to subvert the Rights and Liberties of the Colonists". The Congress cried no taxation without consent, though realizing colonists could not be represented in British parliament.

The New York Sons of Liberty and Trade boycotted British trading ships and threatened loyalists. They burnt the houses of several pro-stamp officials.

The Stamp Act ended up costing more to administer than it took in. Parliament became outraged. Sir William Pitt (1708–1778), a leading Member of Parliament at the time was brother-in-law to George Grenville. Pitt was backed by merchants and manufacturers. He defended colonists saying, "as subjects [the colonists] are entitled to the common right of representation, and cannot be bound to pay taxes without their consent".

William Pitt, First Earl of Chatham by Richard Brompton

Pitt worried about causing a rift between the colonists and Britain. Parliament repealed the Act the next year. Colonists lauded Pitt in America and struck medalets of him.

William Pitt was the leader of the House of Commons from 1757 to 1761. People called him "The Great Commoner" as he refused to accept a title until 1766. That year the King elevated Pitt to the peerage as First Earl of Chatham. Pitt served as Lord Privy Seal and Prime Minister of Great Britain from 1766 to 1768.

Token one of a set of 13 bronze tokens made for Sentimental magazine 1773, engraved by Kirk. 25.6mm, 5.50 grams. #792

The Royal Society elected Pitt as a Fellow, so Pitt presumably had some scientific background. Pitt's son (Pitt the Younger) also became Britain's Prime Minister from 1783 to 1801. From his 20s the older Pitt suffered from recurrent attacks of gout, one of the most painful conditions imaginable, and for which there was then no cure.

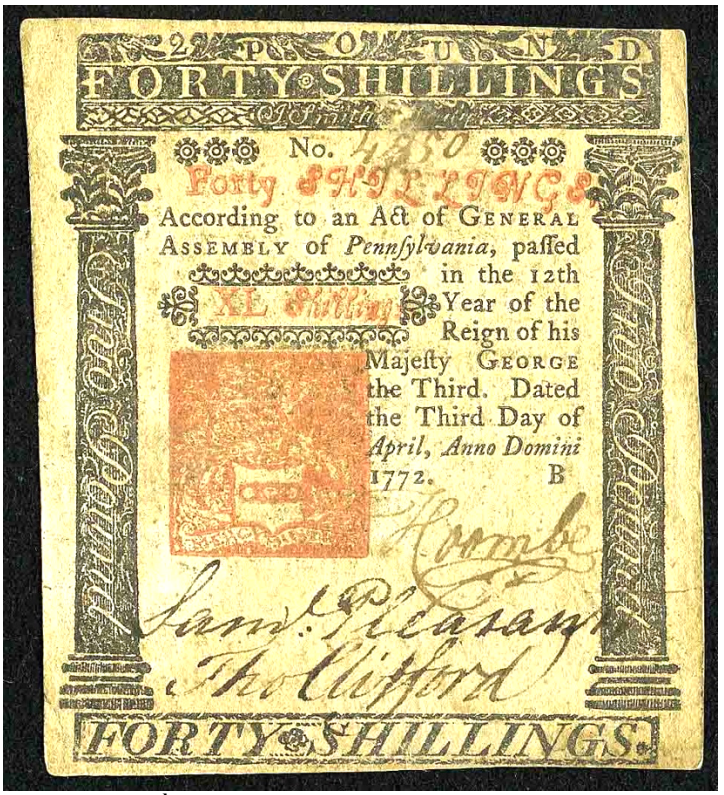
After the British captured the city of Fort Duquesne from the French during the French and Indian War, they renamed it Pittsburg in Pitts' honor. Americans have named 19 places in the United States after Pitt (or Chatham) in his honor.

The first person to mention the origin of the ? American Pitts medal was Montroville Dickeson in his book the *American Numismatical Manual* in 1859. He stated, "The country was indebted to the ubiquitous patriotism of Colonel Paul Revere, of Boston, Massachusetts, for this medalet, who originated and designed it, the artist being, it is said, a Mr. Smithers, of

Philadelphia". "It is said" means someone once said!
There seems no other evidence these two men designed and engraved the medal. To have engaged Revere in Boston, who lived over 200 miles north, then Smither in Philadelphia who lived 100 miles south of New York City, would have been complicated. And with the inflamed sentiments of the time, a local manufacture would seem more logical.

Col. James Smither (1741–1797) arrived in Philadelphia in 1768. He announced himself as an engraver of precious metals, steel, guns and pistols, and a manufacturer of bookbinder's stamping tools. He also advertised inlaid silver design into guns and pistols. Some listed him as a gunsmith.

In 1772 he engraved the border designs for the Pennsylvania notes of April 3rd, 1772. The emission included 3d, 4d, 6d, 9d, 1 shilling, 18d, 2 shillings, half a crown and 40 shillings, all printed by Hall and Sellers.



April 3rd, 1772 PA £2 issue border cuts by Smithers. Courtesy Heritage Auctions, HA.com

Smithers was a Tory (English sympathizer). Thomas Paine wrote to the President of the Continental Congress on April 11th, 1788 (more likely 1778), naming Smither as helping the British to forge Continental Currency. On June 25th, 1778, the Supreme Executive Council of Pennsylvania accused him of high treason and required him to appear before them.

Smither hitched onto British soldiers as they left Philadelphia in 1778 to travel to New York City. There he again advertised his trade, safely surrounded by the British.

After the Revolutionary War Smither returned to Philadelphia in 1786. His wife Rachel Smither petitioned the Pennsylvania Council on February 12th, 1788, for a pardon for her husband. The Council wrote:

"*The petition of Rachel Smither, in behalf of her husband, James Smither, who, in the year 1778, was called upon to surrender himself and abide his trial for high treason, and by neglecting so to do became attainted of high treason, praying Council to grant him a pardon, was read, together with a recommendation of him from a number of respectable citizens as a sober, industrious man, and a useful artist: thereupon. Ordered, That the said James Smither be and hereby is pardoned."*

Who knows if Dickeson's story that Smither engraved the token is true?

Sylvester Crosby, in his exhaustive work *The Early Coins of America*, in 1875 does not even mention the Pitt medalet.

Charles Wyllys Betts' *Historical Medals of America* in 1894 listed eight different medals referring to Pitt (Betts-514 to Betts- 521) including the ? American medalets. The small American medalet is Betts-520 and the larger one Betts-519. He illustrated the larger one and pointed out that the ship has a lion figure-head. In his corrigenda, he adds: "The design and dies were probably by Paul Revere, of Boston". Was he simply quoting Montroville Dickeson?

Laurence Brown in *British Historical Medals* lists six different Pitt medalets (BHM 100–105). Thomas Pingo (1692–1776), the Assistant Engraver at the Royal Mint, engraved two of these. One medalet has the initial I.W. on the truncation. The remaining medals' engravers are unknown. Brown also lists the ? American Pitt

medalets, without mention of possible foreign manufacture.

Is it possible that the ? American Pitt medalet was made in England?

The ? American Pitt medalets come as small and large, called "farthing and halfpenny". American numismatists have to have denominations! The small was likely a prototype, of which Breen estimated only 6 to 8 exist. They have a denticulated rim. The larger medalets have no rim, but the same devices and legends as the larger medalet.

The larger likely passed as underweight coppers as many are very worn. According to Breen the small token weighs 52 to 64 grains (3.37 to 4.16 grams), the large about 84 to 89 grains (5.47 to 5.80 grams). This is not a 2:1 ratio to suggest farthing and halfpenny. George III halfpennies by contrast weigh 153 grains (9.7 to 10.3 grams).

The obverse shows a bewigged bust of Pitt with the legend: NO STAMPS. THE RESTORE$_R$ OF COMMERCE 1766: The reverse shows a ship sailing to the right to the word AMERICA. The legend reads: THANKS TO THE FRIENDS OF LIBERTY AND TRADE.

The lion on the stylized ship's bow suggests an English ship. According to *A brief history of ships' figureheads* on the website Heritage Calling, "During the 17th and 18th centuries the lion was the standard figurehead for lower-ranking royal Navy warships. It symbolized power, speed and aggression". The ship faces east, but with AMERICA across the bow, this confirms it is sailing to America not England. This perhaps conveys that commerce has resumed, an English sentiment.

The legend, THE RESTORER OF COMMERCE suggests British sentiment as the British were more interested in commerce. Pitt had many merchant and manufacturer friends. The New York Friends of Liberty and Trade would have been more interested in liberty and politics than in trade.

The legend, NEW YORK FRIENDS OF LIBERTY AND TRADE was the colonial organization in New York that resisted the Stamp Act. This suggests an American sentiment.

In a Stack's auction of the second Roper collection of colonial and early American Coins, in December 1983, the cataloguer stated: "Given the nature of the inscriptions and the quality of workmanship, it is very possible that the pieces were struck in England at the behest of the merchant groups who supported Pitt".

The auction offered the finest known small sized medalet, almost uncirculated which sold then for $58,750. Enough American ground finds of the medalet suggest manufacture for the American market. But the question remains: was it made in England?

The sentiments expressed on the medalet could thus be American or British. The truncation shows no engravers initials. Smither in America may have struck the medalet privately. However, evidence may still surface that it was struck in England.

Following the Pitt medalet is an example of the English Pitt Token by Thomas Pingo.

References

Bowers, Q. David, Whitman Encyclopedia of Colonial and Early American Coins. 2009. Whitman Publishing, Atlanta , GA.

Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins.* 1988 Doubleday, NY.

Crosby, S. *The Early Coins of America*. Published by the Author Boston 1875.

Hickcox, J., *An Historical Account of American Coinage*. Albany and London 1858.

Vlack, R.A., *Early American Coins*. Windsor Research Publications, New York 1965.

Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*.1947, 1970 and 1073. Whitman Publishing LLC Pelham, AL 35124

https://currency.ha.com/itm/colonial-notes/pennsylvania-april-3-1772-40s-extremely-fine/a/38041-31039.s?ic4=ListView-Thumbnail-071515

https://en.wikipedia.org/wiki/William_Pitt,_1st_Earl_of_Chatham#/media/File:William_Pitt,_1st_Earl_of_Chatham_after_Richard_Brompton.jpg

https://heritagecalling.com/2019/01/31/a-brief-history-of-ships-figureheads/

501

PITT MEDALET 1766. BREEN-251; BETTS-519; BHM-103; 27.5MM, 5.26 GRAMS VF+

2287

PITT MEDAL BY T. PINGO (UNSIGNED). BETTS-515; BHM-100; 40MM, 24.98 GRAMS UNC

RHODE ISLAND SHIP MEDAL

Design elements on Rhode Island Ship Medal (RISM)

It has always mystified me why colonial collectors list a medal as a colonial coin. Did people spend medals as coins?

Hickcox, Dickeson and Crosby (see references) made no mention of the Rhode Island Ship medal (RISM). The Red Book started listing the medal around the late 1950s.

All known RISMs come from the same die pair. They struck a few with "Vlugtende". Then they decided they did not want that, so started scraping the lettering off each medal. After a while this got tedious so they punched an ornament in the die over "Vlugtende" to produce a third variety. Robert Vlack in his book Early American Coins in 1965 lists seven varieties. Chris McDowell, who wrote the most exhaustive authoritative text on RISM lists six:

	McDowell Type	Vlack Type	Number Known
Vlugtende Brass	I	1.	2
Scraped off Brass	II	2.	250–500
Scraped off Pewter	III	3	5 - 9.
Ornament Brass	IV	4.	125–250
Ornament Copper	-	5.	As above
Ornament Pewter	V	6.	10–30
Silvered	VI	7.	8

I find this far too complicated and prefer:

- Vlugtende (2 known in brass)
- Vlugtende scraped off (brass and pewter)
- Ornament (brass and pewter)

Vlack listed copper and brass, but today people feel that they are just varying compositions of brass. There are also eight known silvered specimens, presumably done after striking. Only the scraped off and ornament types are common enough to collect.

The medal

Breen, the Red Book, and McDowell all show pictures of the medal with the ship on the left (as above), which McDowell calls the reverse.

The ship is Admiral Lord Richard Howe's Flagship. The legend is: "DE ADMIRAALS FLAG VAN ADMIRAAL HOWE 1779. This does **not** mean Admiral Howe's flagship. It means: "The admiral's flag of Admiral Howe".

If a flag flies only from the jack mast (see diagram above) the ship is at anchor. Admirals flew their flag on the foremast (see above) signaling to other captains what to do. When

Admirals left the ship, they lowered his flag. On this medal you can see that the first and last pennant and the ensign staff flag all depict the St. George's cross. The foremast and mainmast pennants are too poorly struck to see the design above, but better struck specimens show anchor like devices. A Vice Admiral's device was then a St. George's cross on the foremast. Thus the flags say: there is no Vice Admiral on this ship.

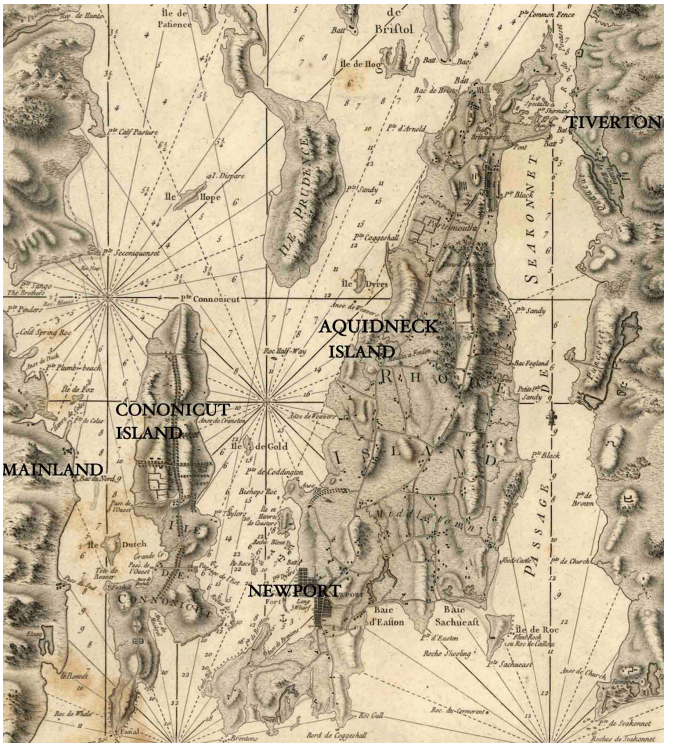
Details of mainmast and foremast pennants on well struck medal. Courtesy of Heritage Auctions. HA.com

The mainmast pennant is a commissioning pennant, which would remain flying even if the captain left the ship. The ship is not sailing as the sails are furled. The jackmast pennant is flying telling us the ship is at anchor.

"Vlugtende" means fleeing in Dutch, but who is doing the fleeing? The other side tells the story.

Well struck specimen showing bayonets attached.

The reverse shows Aquidneck Island. Newport is on Aquidneck Island. Three British warships on the west of the island have their sails furled. On the island, four orderly rows of Continental soldiers with muskets shouldered are marching east. Off the east coast of the island are 13 whaleboats waiting for them. The legend reads D'VLUGTENDE AMERICAANEN VAN ROHDE YLAND AUG'T 1778. This means the fleeing Americans of Rhode Island August 1778.



1780 French map of Aquidneck Island.

Explanations of RISM

McDowell points out that Kutsuki Masatsuna first mentioned the Rhode Island Ship Medal (RISM), in his 1787 book *Seiyo senpu* ("Notes on Western Coinage"). Because of Christian proselytization in the 1500s, the Tokugawa shogunate forbade foreigners to enter Japan except for a few Dutch East India Company representatives. One of them, Isaac Titsingh, was an avid numismatist, as was Masatsuna. They formed a friendship, and corresponded. As a leading feudal Japanese Lord, Masatsuna escaped prosecution for his eccentric interests. His collection swelled to 9,000 coins, many now in the British Museum.

In 1823 the Dutch East India Company assigned a physician, Philipp von Siebold, to Japan. He fell in love with Japanese culture and with a Japanese woman, whom he married. The Japanese found maps on him and accused him of high treason, so he had to flee. He took with him a copy of Masatsuna's book and later translated it into Dutch. His entry for RISM reads, "remembrance medal of the driving away of the North Americans from Rhode Island by the English Admiral Howe. Both these last tokens

are common, and are, as collectors are aware, of very bad workmanship".

McDowell presents arguments for and against the medal being presented to Dutch sailors serving onboard British warships. He gives a high estimate of only 160 Dutch sailors serving then in the British Navy. Even today, over twice as many RISMs exist as possible awardees. Had recipients worn them, most RISMs would be circulated and holed. Neither is the case. The British Admiralty have no record of RISMs. Neither did they award any medals to **British** seamen. The Dutch during the period also did not award medals to seamen.

George Fulson, the US Chargé d'affaires in the Netherlands wrote in 1853 to the New York Historical Society enclosing a RISM saying it came from a Dutch soldier who gave it to a Dutch Lieutenant. Fulson opined Britain made it to boast of their victory to the Dutch. The medal first appeared at Elliot Woodward's Seavey Collection Auction in June 1864 garnering **two** "unlimited" bids"! It sold for $40! Only six years earlier Hickcox quoted New England shillings selling for $20! So, a collector, John King, travelled to Holland and bought 15 RISMs (well known in Holland at the time). By the 1880s RISMs sold for $1.

A Dutch medalist, Frederic Muller, published a supplement to Van Loon's *Dutch Medals* book in 1862. He opined that the RISM's spelling and machining were of English origin and said he knew that both the US and England were trying to gain sympathy for their cause in Holland during the Revolutionary War.

The Battle of Rhode Island

The Kings of England and Holland were related. Britain expected Dutch support during the American Revolution. England had a hissy fit when Holland became the first to recognize the US as a separate country! In March 1776 the British abandoned Boston and seized Aquidneck Island in Narragansett Bay, stationing 6,000 British and Hessian troops on the Island mostly around Newport for two years.

After America won the Battle of Saratoga, the French proposed a treaty of Amity with America which the Continental Congress ratified in May 1778. In July 1778, 12 ships of the line and four frigates under French Admiral d'Estaing entered Newport harbor.

To avoid their ships being captured, Capt. John Brisbane, then Newport's senior British naval officer, ordered five frigates and 13 transport vessels be scuttled.

The next month, in the Battle of Rhode Island, Major General John Sullivan's Continental Army, joined by many volunteers, occupied a northern Aquidneck. Their objective: to capture Newport. Admiral d'Estaing put his marines on Conanicut Island (see map previous page). Just then, British Admiral Richard Howe appeared with his fleet on the horizon. D'Estaing collected his marines and sailed out to sea to fight him.

A sudden hurricane scattered and damaged both the British and French fleets. The British went to New York City to repair; the French went to Delaware, then Boston to repair.

American Major General Sullivan then announced that French Admiral d'Estaing's decision was "derogatory to the honor of France", damaging Franco-American relations.

Between August 24th and 28th Gen. Sullivan's Continental forces withdrew from Newport siege camps. Many volunteers deserted. Hessians attacked the Americans on hills on Aquidneck but fled after an American bayonet charge on August 29th. The British suffered more casualties than the Americans.

British Capt. John Brisbane, Newport's senior naval officer, took three British warships and cannonaded American positions. But American artillery drove them off, allowing the Americans to reach the mainland at Tiverton where they disembarked.

The medal thus shows the three British warships unsuccessfully trying to prevent American troops from withdrawing. Instead, Americans made an orderly retreat to their whaleboats to return to Tiverton on the mainland (see map opposite).

On September 1st, 1778, Admiral Howe returned to Aquidneck with 5,000 troops. The Americans had vanished. Later that month British Vice Admiral John Byron arrived in America and Admiral Howe resigned.

When Howe returned home to Portsmouth, British authorities kept him waiting for five days before they allowed him ashore. He learnt the Admiralty blamed him for what happened.

Howe returned directly to his estate, rather than the Admiralty, snubbing them. As an MP, he later criticized Lord North's prosecution of the war in the House of Commons, and asked for a full enquiry and censure of the Admiralty. He refused any further naval appointment as long as Lord North prosecuted the war.

Howe's brother was General William Howe the British commander-in-chief in North America from 1776 to 1778. General Howe disobeyed orders by failing to meet up with General Burgoyne, leading to Burgoyne's defeat at Saratoga. After this General Howe resigned.

Striking details.
Brass RISMs are 60% copper and 40% zinc. They are like Muntz Metal which looks like gold when new. Like Rosa Americana coins, minters had difficulty controlling the amount of zinc in the mixture, and planchet appearances varied. Thus, there are coppery and brassy medals in the series, but the minters did not intend different metals. Also, like Rosa Americana coins, they used a drop hammer press, heated the planchets before striking, and did not use a collar. They finished RISM edges with grinders after striking.

What is the RISM?
McDowell opines RISM is a jeton. What is a jeton? Until around 1500, even educated people could not add and subtract because they used Roman numerals which made the process difficult. Every town had its own rechenmeister, who did all the arithmetic on their counting boards — like an accountant today.

Rechenmeisters used a counting board and jetons, similar to an abacus, only they threw jetons (jetter is French for throw) between lines instead of sliding beads on a rod. The jeton opposite depicts a counting table.

Around 1500, a revolution occurred in European arithmetic. They called it Arabic cypher. Instead of learning the Rechenmeister's rules, they could now write Arabic numerals on paper and write the results on paper. Now, literate people could add and subtract. Rechenmeisters gradually went out of business. But the jetons they used continued as game counters, political advertising, gifts, cheap collectibles, etc.

In most of Europe, jetons measured around 25mm, but in Holland they grew larger. By 1750 most measured over 35mm. McDowell lists the differences between jetons, medalets and medals:

	Jeton	**Medalet**	**Medal**
Size	small	small	large
Relief	low	high	high
Workmanship	poor	good	good
Planchet	thin	thick	thick
Metals	AE,AR	AE,AR,AV	AE,AR,AV

Rechenmeister jeton 1553, the obverse shows a rechenmeister sitting at his counting table Mitch. 1424; 27.5mm, 4.87 grams #2346

With this historical background England did not strike the RISM. They look more like the Dutch portraying contemporary history to a load of anti-British Dutchmen about how the Brits lost a battle. On the ship side of the medal, flags are not consistent with a Vice-Admiral on board. It says: the great British Admiral Howe, left the navy and fought Lord North. The Aquidneck side says: three impotent British ships could not stop the orderly retreat of the American after the Americans lashed the Brits.

McDowell confirmed what I had thought decades ago: that, like the New York Theater token, people have mistakenly collected them because they depicted something American, not because either saw circulation.

References

Bowers, Q. David, Whitman Encyclopedia of Colonial and Early American Coins. 2009. Whitman Publishing, Atlanta , GA.
Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins.* 1988 Doubleday, NY.
Crosby, S. *The Early Coins of America*. Published by the Author Boston 1875.
Dickeson, M., *American Numismatical Manual*. Lippincott & Co., Philadelphia, 1860.
Hickcox, J., *An Historical Account of American Coinage*. Albany and London 1858.
McDowell, C.R., A New Look and Fresh Theory on the origins of the Rhode Island Ship medal. Journal of Early American Numismatics. 1:2 (2018) pp. 65 – 158. ANS New York.
Van Loon, Gerard. *BESCHRYVING DER NEDERLANDSCHE HISTORIPENNINGEN.* Holland 1726.
Vlack, R.A., *Early American Coins*. Windsor Research Publications, New York 1965.
Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*.1947, 1970 and 1073. Whitman Publishing LLC Pelham, AL 35124
https://coins.ha.com/itm/colonials/1779-token-rhode-island-ship-token-no-wreath-brass-ms64-pcgs-betts-562-w-1730-r3/a/1256-3508.s?ic4=ListView-Thumbnail-071515
https://cdn.loc.gov/service/gmd/gmd377/g3772/g3772r/fi000072.jp2
https://www.loc.gov/item/gm71000684/
https://cdn.loc.gov/service/gmd/gmd377/g3772/g3772n/ar100300.jp2

2699

Rhode Island Ship Medal, Pewter. Ornament Type. Ex-Garrett. W-1745; 31.5mm, 8.63 Grams PCGS AU53 (10-15 Known)

#635

RHODE ISLAND SHIP MEDAL BRASS SCRAPED-OFF TYPE W-1730; 32MM, 9.18 GRAMS EF PLUGGED

BAR COPPERS

Yet another mysterious coin! John Hickcox (see references) made no mention of it in 1858. Dickeson in 1859 wrote of it as a "U.S.A. copper". He wrote:

"It is asserted by some, they were issued in 1776 – favoring the idea, that the issue of a coinage at this time was intended as an endorsement of the Declaration of American Independence; by others, that they made their appearance in 1783 — the year of its recognition by Great Britain. They were, at any rate, merely a private enterprise, and we have learned, satisfactorily to ourselves, that they were really gotten up and struck off in Cherry Street, in Philadelphia. As this location is the birthplace of the "Washington cent of 1791," it looks a little as if the Mr. Harper, therewith so prominently connected, might possibly have paid some attention to the art of coining, before the period when he became so famous."

Sylvester Crosby wrote in 1875:

THE BAR CENT, OR U S A COPPER. This is another piece about which little is known. Bushnell says of it, "This copper was coined in Birmingham, in England, in the year 1785, and was probably the work of Wyon. The obverse USA is the same as the device of the old Continental Buttons, having been copied from them. This novel piece was put into circulation int the city of New York, and made its first appearance there in the month of November, of the above-mentioned year. On account of its light weight, as well as its device, it was not received with favor, and was not extensively circulated".

Walter Breen in 1988 wrote:

The New Jersey Gazette, Nov. 12, 1785, described a recent arrival among circulating coppers from Birmingham "Hard Ware" makers:

A new and curious kind of coppers have lately made their appearance in New York. The novelty and bright gloss of which keeps them in circulation. These coppers are in fact similar to Continental buttons without eyes; on the one side are thirteen stripes and on the other U.S.A. as was usual on the soldier's buttons. If Congress does not take the establishment of a Mint into consideration and carry it into effect it is probable that the next coin which may come into circulation, as we have a variety of them, will be the soldiers old pewter buttons, for they are nearly as variable as the coppers above described and hardly so plenty.

Breen says Charles Ira Bushnell attributed these to Wyon's mint in Birmingham. Breen suggests a US merchant ordered them, furnishing a Continental Army uniform button as a prototype, with which Louis Jordan agrees. The USA on the coin looks the same as on the button. He adds. "there are more forgeries than of any other coins of the period" He adds most survivors are F – VF. We now quote 1785 as the date of manufacture.

They weighed 80.8 to 87.2 grains (5.24 to 5.65 grams). The planchets are light and tight, often cutting off rim denticles. When you turn the coin over 0 degrees (i.e. medal turn) there is a small top left spike from the second bar from the bottom. The sixth bar from the bottom has a tiny spike coming off the top in the middle.

In the bar copper the S goes over the U and under the A, only seen on detailed examples.

John Adams Bolen (1826–1907), a numismatist and engraver, of Springfield, Massachusetts, engraved dies including for bar coppers. He struck 65 pieces in copper in 1862. Woodward bought the dies and struck 12 pieces in silver. In these copies the letter S passes over the U and the A. Also, the spicules on the reverse are all different. I show an original and a Bolen copy on the next page.

These coins auction for a lot of money. The original on the next page sold for $70,000! I have chosen to buy a copy. I have a difficult time spending six figures on a coin that just says USA!

Continental Army Button. Courtesy of Heritage Auctions. HA.com

Real Bar Copper. Courtesy of Heritage Auctions HA.com

Real Bar Copper reverse. Courtesy of Heritage Auctions HA.com

Bolen Copy of Bar Copper. Courtesy of Heritage Auctions. HA.com Note S passes over A. In the original it passes over the U and under the A.

Bolen Copy of Bar Copper. Courtesy of Heritage Auctions. HA.com. Note no spicules off second bar from bottom or 6th bar from bottom.

References

Bowers, Q. David, Whitman Encyclopedia of Colonial and Early American Coins. 2009. Whitman Publishing, Atlanta , GA.

Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins.* 1988 Doubleday, NY.

Crosby, S. *The Early Coins of America*. Published by the Author Boston 1875.

Dickeson, M., *American Numismatical Manual*. Lippincott & Co., Philadelphia, 1860.

Hickcox, J., *An Historical Account of American Coinage*. Albany and London 1858.

Vlack, R.A., *Early American Coins*. Windsor Research Publications, New York 1965.

Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*.1947, 1970 and 1073. Whitman Publishing LLC Pelham, AL 3

https://coins.ha.com/itm/colonials/-circa-1862-bar-cent-bolen-facsimile-copper-au55-ngc-kenney-1-m-jab-2-w-14200-r5/a/1283-15017.s?ic4=ListView-Thumbnail-071515

1014

Gallery Mint Museum Copy of Bar Cent. 1785. Note S over & Under Like Original.

CHAPTER NINETEEN
1776 STATE COINAGE — NEW HAMPSHIRE & MASSACHUSETTS

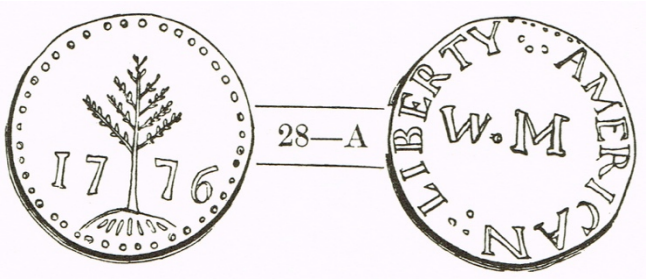
NEW HAMPSHIRE

New Hampshire produced no collectible coins. But they were the first state to discuss coinage. Even before the Declaration of Independence, the New Hampshire House of Representatives voted (on March 13th, 1776) to "confer upon the expediency of making Copper Coin."

A committee report later that day stated they found it "expedient to make Copper Coin for the Benefit of small Change, and as the Continental and other Bills are so large (i.e. Continental currency denominations) that William Moulton be impowered to make…100lb…(at)…108 equal to one Spanish milled Dollar…equal in Wt to English halfpence." 108 coppers represented 18 coppers to a shilling and 6 shillings to a Spanish milled dollar. The report went nowhere but led to a few patterns. Crosby includes a drawing of a coin with a tree and harp in a circle.

The pine tree symbolized New Hampshire. For many years New Hampshire sent trunks to England as ship masts for the Royal Navy.

In 1875 Sylvester Crosby noted a recent ground-find by a laborer who insisted on an exorbitant price for the coin which Crosby represented by a woodcut. It showed a tree on one side and the letters WM on the other side:



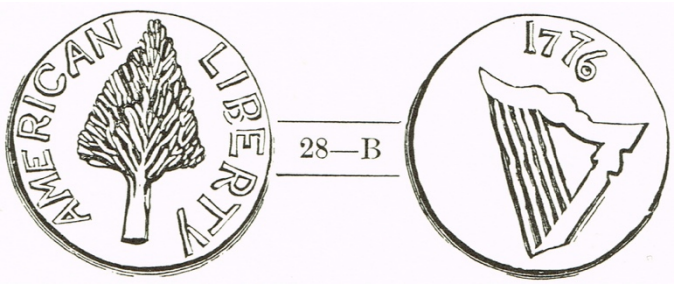
Crosby next mentions Peter Force's *American Archives* as a source for a June 1776 document. A printer by trade, Peter Force collected the most important documents related to the American Revolution which his partnership published in nine folio volumes between 1837 and 1853. In 1867 the US Congress bought his collection of original documents for $100,000 expanding the Library of Congress.

According to his *American Archives* the New Hampshire House of Representatives met again on June 28th, 1776. They voted for a copper coin of 130 grains (8.42 grams) with a pine tree and AMERICAN LIBERTY on one side and a harp and 1776 on the other (below opposite). Breen suggests they may have purloined the harp design from the $7 continental currency with the label "minora majoribus consonant" (Latin for the larger {states} harmonize with the smaller). Breen likely counted on no one checking!

$8 Continental Currency February 17th, 1776

$7 Continental Currency February 26th, 1777

The $8 not the $7 note of May 1775 has the harp design! Crosby gives a woodcut of this tree/harp design also:



Both Robert Vlack and Walter Breen listed four varieties of the coins, but they do not agree on the four types!

- Tree on straight ground. WM reverse. Always cast. Breen 705. Breen states they weigh around 9.7 grams, close enough to the weight of a 1770–1775 George III halfpenny.
- Tree on curved ground. WM reverse. Always cast. Breen 706, one example weighed 5.15 grams. The New Hampshire House of Representatives voted on a coin the same weight as an English halfpenny, which was 9.2 to 10.8 grams. A few months later they reduced the legal weight to 8.4 grams. If these coins really were patterns, one might expect a more realistic weight. Large numbers of modern cast forgeries exist. Breen lists another variety 707 as similar but an engraved copy on a coin.
- Large tree obverse. Small harp reverse. Vlack said this is the engraved coin.
- Small tree obverse. Large harp reverse. Breen lists a Breen 708 variety, weighing 9.4–10.0 grams.

There are thus two basic types:

- the tree/WM type
- the tree/harp type.

They both weigh the same as an English halfpenny and both are cast. If Mould did cast the copper patterns, why would he then engrave one? The New Hampshire Legislature specified the weight of an English halfpenny (9.2–10.8 grams) then later specified 8.42 grams. So, a copy of 5.15 grams is likely not an original pattern.

According to Daniel Freidus, numismatist C. Wyllys Betts, made struck copies of the tree/harp variety in the early 1860s.

Vlack commented that all four varieties were of questionable authenticity. He added, "it is virtually impossible to believe that a State Committee would allow the initials WM to be so prominent". The Red Book stopped listing the pattern in 1998. Likewise, Q. David Bowers in his colonial coin book lists it as a possible fantasy issue.

Thus, the only remaining candidate is the cast tree/harp variety i.e. Breen 708. There are only three in private hands. Eric Newman's Good-6 example hammered in 2014 for $94,000! Nevertheless, it is fun to have one of the cast forgeries of what people once thought might have been a William Mould pattern in 1776

References

Betts, Charles W., *American Colonial History Illustrated by Contemporary Medals*. Scott Stamp and Coin Company, NY, NY 1894 (Available as Kessinger Legacy Reprint)
Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American coins*. Whitman Publishing, Atlanta, GA 2009
Breen, Walter H., *Complete Encyclopedia of U.S. and Colonial coins*. Doubleday Books, NY, NY 1988
Crosby, Sylvester S., *Early Coins of America*, Published by the Author, Boston, MA. 1875
Ford's Edition, *Journals of the Continental Congress*, September 1776, page 726, Volume V. List of Foreign Silver and Gold coins and their equivalent weights and values in 1776.
Mossman, Philip L., *Money of the American Colonies and Confederation*. ANS, NY, NY. 1993
Nipper, Will, *In Yankee Doodle's Pocket*. Bowmanstone Press, Conway AR. 2008
Vlack, Robert A., Early American Coins. 2nd Edition. Windsor Research Publications, Inc., Johnson City, NY 1965

1716

New Hampshire Struck Pattern on Cast Planchet. 1776 Pine Tree/WM 24mm, 5.69 Grams EF

MASSACHUSETTS

After the Declaration of Independence in 1776 and until ratification of the US Constitution by two-thirds of the states in 1788, states were free to coin their own coppers. Incidentally the Declaration of Independence was July 2nd not July 4th!

The delegates to the Constitutional Convention signed the US Constitution in September 1787 and then sent it to all 13 states for ratification. When the ninth state ratified it on June 21st, 1788, government under the articles of Confederation officially ended. Massachusetts ratified it in February 1788.

Three unique 1776 Massachusetts coppers are known:

1. Breen 702 (Indian halfpenny) shows a standing Indian with bow and arrow with the legend PROVIN OF MASSA. The reverse show liberty with a pole seated on a globe, with a dog at her feet, and the legend D (EFENSOR ? LIB) ERTATIS. The engraver presumably worked before July 4th when Britain still ruled Massachusetts as a province.
2. Breen 703 (3-headed halfpenny) shows three heads facing to the left, right and straight ahead. This is like the first god in the Hindu triumvirate called Brahma (symbolizing past, present and future). Breen offers the suggestion that the three heads symbolize watchfulness in every direction against the British redcoats. The legend reads STATE OF MASSA (presumably after July 2nd when Massachusetts became a state). The reverse shows a seated liberty with a pole, and a dog at her feet.

Lord Brahma with two wives, Saraswati & Gayatri

3. Breen 704 (pine tree cent) shows a pine tree, with 1d to the left and LM to the right of the trunk (one penny lawful money). The legend reads, "MASSACHUSETTS STATE". Lawful money at the time had a specific meaning i.e. six shillings to the Spanish milled dollar. The reverse shows liberty with a pole seated on a globe and a dog at her feet, and the legend LIBERTY AND VIRTUE.

These three coins share multiple similarities. They all:

- are unique (one resides in the Massachusetts Historical Society, one in the American Numismatic Society, the third resides with a private collector),
- have 1776 in the exergue on the reverse,
- have liberty with a pole, seated on a globe on the reverse,
- have a dog at liberty's feet, a symbol of vigilance,
- have lettering peculiarities shared with Paul Revere's currency and security plates,
- show someone inexperienced as a die sinker doing crude work,
- have no official authorization.

Some say the 3-headed halfpenny was discovered together with some of Paul Revere's plate proofs. However, the Massachusetts Historical Society, custodian of those effects and personal papers, cannot confirm this. Put all these facts together and most have concluded these are Paul Revere's private strikings.

Also of interest, Paul Revere lived in Boston, where the pine tree penny came to light in an unlikely sequence of events. A grocer in north Boston excavated to add to his house and found the coin which he sold to a schoolboy Edward W. Hooper. Hooper sold it in 1852 to Jeremiah Colburn, who sold it to William Appleton, who gave it to the Massachusetts Historical Society (MHS).

In 2010, at the annual American Numismatic Association meeting, which took place in Boston that year, Anne Bentley, MHS curator, kindly invited any interested numismatist to visit MHS. She offered to show America's prime numismatic property — George Washington's personal set of silver Comitia Americana medals! I was the only one who took her up on her invitation. She let me handle all the medals, and showed me the Revere Pine Tree Copper. It was a large coin, larger than a half dollar, which I got to hold too.

I have acquired two Massachusetts 1776 copies which I am not ashamed to show. They may only be worth a few dollars apiece, but if you want to collect this stuff, copies are all that is available!

References

Betts, Charles W., *American Colonial History Illustrated by Contemporary Medals*. Scott Stamp and Coin Company, NY, NY 1894 (Available as Kessinger Legacy Reprint)

Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American coins*. Whitman Publishing, Atlanta, GA 2009

Breen, Walter H., *Complete Encyclopedia of U.S. and Colonial coins*. Doubleday Books, NY, NY 1988

Crosby, Sylvester S., *Early Coins of America*, Published by the Author, Boston, MA. 1875

Mossman, Philip L., *Money of the American Colonies and Confederation*. ANS, NY, NY. 1993

Nipper, Will, *In Yankee Doodle's Pocket*. Bowmanstone Press, Conway AR. 2008

Vlack, Robert A., Early American Coins. 2nd Edition. Windsor Research Publications, Inc., Johnson City, NY 1965

Yeoman, R.S., *Guide Book of United States Coins*, Whitman Publishing, Racine, WI. 1947

https://en.wikipedia.org/wiki/Brahma#/media/File:11th_century_Brahma_at_Gangaikonda_Cholapuram_Shiva_temple.jpg

531

Crude Cast Copy of 1776 Pine Tree Copper. 31.5mm, 16.72 Grams

553

Crude Cast Copy of "Janus Head" Copper Massachusetts 1776. 23.5mm, 5.89 Grams

CHAPTER TWENTY
MASSACHUSETTS CENTS AND HALF CENTS

After several months of petitions and letters about state endorsed franchises (from Seth Reed and James Swan starting in March 1786), the Massachusetts General Court decided to establish its own mint.

Governor James Bowdoin asked the State Legislature to hold off coinage, anticipating the US Congress would shortly issue cents (this happened in 1787). But on October 17th, 1786 the Commonwealth of Massachusetts passed an Act to construct a mint in Boston for gold, silver and copper coins. Hickcox and Crosby say they planned on $70,000 of cents and half cents!

On October 23rd, 1786 the Commonwealth resolved to provide £600 in expenses to set up a mint. In May 1787 the Mint Committee appointed Captain Joshua Witherle, a Boston goldsmith, as mint master. Hickcox first identified the location of the mint facilities as Boston Neck and Dedham.

Crosby says the copper mill was at Dedham, and the Mint house stood in the rear of Witherle's property at 1232 to 1144 Washington Street. This was close to the intersection of Washington and modern day East Berkeley Street. They used to call the area Boston Neck, the isthmus joining the old island of Boston to the mainland, which has all been filled in now. The Mint was a single story wooden building measuring 20 by 40 feet. Witherle cast the copper ingots at the Mint. Horses then carted them to the rolling mill in Dedham, where a trip hammer rolled them into sheets, returning them to the mint for blanking and striking.

Legislation specified the devices on the coins, but not their weights. Massachusetts one cent pieces weigh 9.46 to 10.7 grams (compared to the regal standard at the time of 9.86 grams for a halfpenny). Paul Revere's Boston pupil, Joseph Callender (1715–1821), engraved the 1787 and early 1788 dies. These have open S's (see opposite), first noted by Crosby. They minted the first coins late in 1787. According to Bowers (see references) the first mention was a manifest dated September 2nd, 1787, for the sloop *Lady Washington,* which included "500 cents and 500 half cents".

Open S (Callender) above. Closed S (Perkins) below.

In 1788 the Legislature felt Joseph Callender's fee of 24 shillings per die too high. So Wetherle hired Jacob Perkins (1766–1849) of Newburyport to make the rest of the 1788 dies. These have closed S's (see above). Newburyport is 35 miles northeast of Boston. Perkins received 1% of the coins struck from his dies – a nice way of ensuring good dies! The Mint used locally mined copper and old mortars and brass cannons.

Callender received £48 12 shillings in total. Perkins received only £3 18 shillings 10 pence. Perkins would later make a fortune out of his Washington funeral medal in 1800, his Patent Stereotype Steel Plate, and inventing siderography.

Breen gave the following figures:

$2,210.43 coinage from Callender's dies
$1,280 coinage from Perkin's dies
$3,490.43 total coinage
Cost of operations $7,481.36

They paid a little over two cents to produce each cent! Realizing this in November 1788, the Commonwealth asked for franchisees, and asked Witherle to coin all copper on hand then close the facility. Witherle dismissed employees in January 1789.

In 1789 a coper panic swept through America. For the first time people worried whether their coppers had enough copper bullion in them. But it had also become illegal for states to mint coins.

Article 1 Section 8 of the Constitutions said, "Congress shall have the power to coin money". Article 1 Section 10 said, "States are not permitted to coin money; emit Bills of Credit; (or) make anything but gold and silver coins as tender in payment of debts."

Under the Articles of Confederation, Congress and the States could coin money. But during the Philadelphia Convention in 1787, they signed the US Constitution into law on September 17th, 1787. Within ten months 11 states ratified the constitution. Massachusetts ratified it on February 6th, 1788. Rhode Island was the last to sign it on May 29th, 1790.

The Massachusetts General Court closed the mint without granting a private franchise as their attorneys reminded them the federal constitution prohibited coinage by the states. On November 22nd, 1788 the Massachusetts Governor asked the Mint to finish striking all copper on hand, then discharge its employees and close the Mint.

The coins

The first die had CENT on the eagle breast in relief. This soon wore off. Callender had also mistakenly transposed the arrows to the right eagle talon. (I show a modern counterfeit of this on page 26 with an incorrect incuse CENT). All remaining coins have CENT in incuse and the arrows in the left talon.

Counterfeiters produced 1787 cents with a hornless eagle (the horn was from a die defect) holding a four-leaf olive branch. All genuine hornless dies showed five laurel leaves. Authorities recognized and rejected these. According to Breen they sold off the planchets for re-use, possibly to Jarvis or Machin's Mills.

Massachusetts coppers are the only state issue which conformed to the 1786 Congressional Act proposing decimal coinage. They were also the only state to issue half cents.

Dickeson (see references) in 1858 listed 13 varieties of 1787 cents and 19 varieties of 1788 Massachusetts cents. He listed no half cent varieties saying they were very scarce. Crosby in 1875 quoted the same number of varieties of 1787 and 1788 cents, and included detailed attribution tables together with a heliotype plate. He also included six varieties of 1787 half cents and two varieties of 1788 half cents. Hillyer Ryder listed more varieties in his 1920 *State Coinages of New England* (see references). We now list Massachusetts coppers by Ryder variety.

The eminent colonial numismatist, Robert Vlack made high quality photographic plates of varieties in 1978. Mike Packard in the Colonial Newsletter in September 1991 listed rarity ratings of all the Massachusetts cent and half cent varieties.

Massachusetts Ryder varieties:

1787 Half Cents 9 types

- Obverses 1 through 6
- Reverses A through D

1787 Cents 14 types

- Obverses 2a, 2b, 3, 4, 6, 8, (2a/F is the transposed arrows variety)
- Reverses A,C,D,E,F,G,J, (1-B, 5-I and 7-H are counterfeits)

1788 Half Cents 2 types

- Obverses 1
- Reverses A, B

1788 Cents 26 types

- Obverses 1-4, (5-H listed by Crosby and Ryder but none currently known) 6–13, 15–17
- Reverses A–I, K–O. (14-J is counterfeit)

Michael Demling, a New Jersey architect, has published a beautifully illustrated attribution guide to these types (see references). Bower's book also shows similar pictures. But many collectors, including myself, collect by Red Book variety only, as die differences are so slight.

The image of the Native American is taken from the first Massachusetts bay Colony seal in 1629 illustrated on the next page. The native held his arrow upside down in a gesture of peace, with the unlikely words "Come over and help us"! This quote from Acts 16:9 spoke to the missionary zeal of early Massachusetts Bay Puritans.

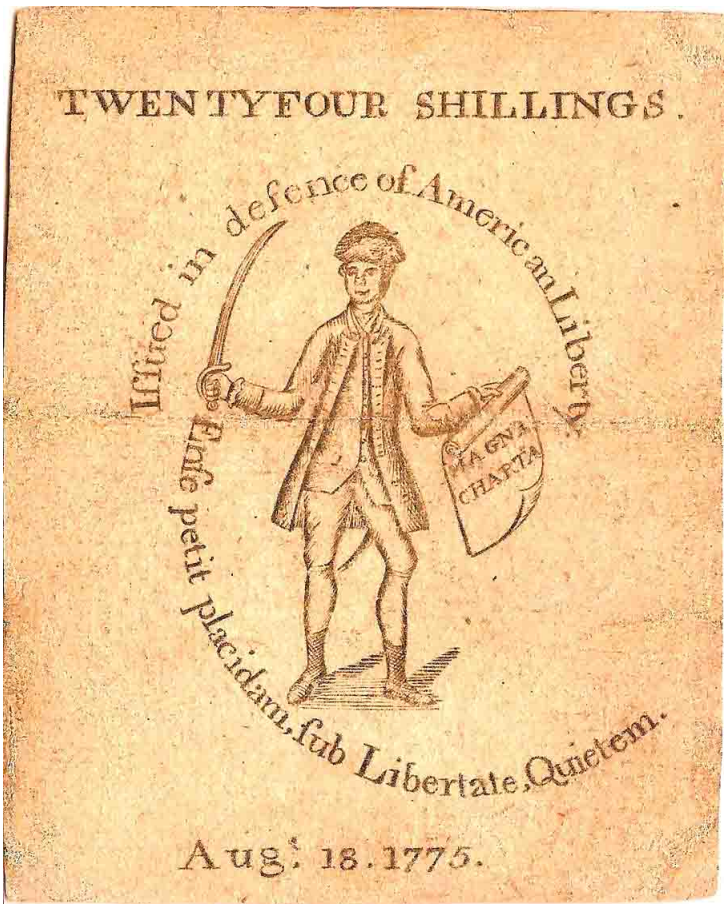
A new Revolutionary seal appeared in 1775 (next page) depicting a minuteman with sword in hand and the Magna Carta, seen on Massachusetts currency. But the original seal with the Native American resumed after the Revolution.

1629 Massachusetts Bay Colony seal

Modern rendition of Massachusetts Seal

Edmund H. Garrett created the modern rendition of the seal (above) with the Latin motto meaning, "with a sword she seeks quiet peace under liberty". The sword above is the state military crest, reminding us that independence was won through the American Revolution. The star to the left of the native American's head symbolizes Massachusetts as one of the original states. In the same way Vermont landscape coppers have the motto "stella quarta decima" meaning the fourteenth star, i.e. hoping join the United States as the fourteenth state.

I learned while grading Massachusetts cents to grade by surface. We do not always know how well they struck the coins. But you can see how much wear is on the fields of the coin. I show genuine coppers ahead, then two beautiful struck Evanson copies each with a tiny **E** above the star.



Massachusetts "Sword-in-hand" 24 shilling note 1775

References

Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American coins*. Whitman Publishing, Atlanta, GA 2009

Breen, Walter H., *Complete Encyclopedia of U.S. and Colonial coins*. Doubleday Books, NY, NY 1988

Crosby, Sylvester S., *Early Coins of America*, Published by the Author, Boston, MA. 1875

Demling, M.A., *Massachusetts Coppers. A comprehensive analysis and attribution guide of Massachusetts colonial coppers.* 2015. Privately published.

Dickeson, Montroville W., *The American Numismatic Manual*. Second Edition J.B. Lippincott & Co., Philadelphia, 1860.

Ryder, H., *The Copper Coins of Massachusetts.* Durst reprint, NY. 1981

Hickcox, J.H., *An Historical Account of American Coinage.* Albany, NY. 1858. Bowers and Merena reprint 1988.

Mossman, Philip L., *Money of the American Colonies and Confederation*. ANS, NY, NY. 1993

Nipper, Will, *In Yankee Doodle's Pocket*. Bowmanstone Press, Conway AR. 2008

Ryder, H., *The State Coinages of New England*. American Numismatic Society. New York 1920

Vlack, Robert A., *Early American Coins*. 2nd Edition. Windsor Research Publications, Inc., Johnson City, NY 1965

Yeoman, R.S., *Guide Book of United States Coins*, Whitman Publishing, Racine, WI. 2020 73rd Edition.

By Unknown - http://historyproject.ucdavis.edu/ic/image_details.php?id=12420, Public Domain, https://commons.wikimedia.org/w/index.php?curid=52636897

352

1787 Massachusetts Half Cent. Ryder 4-C; 24mm, 4.16 Grams UNC Die Rust

396

1787 Electrotype Massachusetts Cent. Transposed Arrows. Ryder 2A-F 28mm, 10.84 Grams EF

644

1787 Massachusetts Cent Ryder 6-G; 29mm, 10.27 Grams VF

#739

1787 Massachusetts Cent Horned Eagle Ryder 2B-A; 29mm, 9.95 Grams EF Edge Dings

768

MASSACHUSETTS HALF CENT 1788 RYDER 1-B; 23.5MM, 4.45 GRAMS AU

226

Massachusetts Cent 1788. Period After Mass. Ryder 10-L; 28.5mm, 9.70 Grams VF

789

Massachusetts Cent 1788 No Period After Mass. Ryder 6-N; 27.5mm SEGS VF

1604

Evanson Struck Copy of Massachusetts Half Cent 1788. 23.3mm, 7.38 Grams UNC

1603

EVANSON STRUCK COPY OF MASSACHUSETTS CENT 1788. 29.1MM, 11.69 GRAMS UNC

CHAPTER TWENTY ONE
CONNECTICUT COPPERS

With 354 types, collecting Connecticut coppers is an expansive subject, and a dizzying prospect. I find them poorly made and unattractive, so have only collected a few. The easiest way to understand them is to follow the history books about them.

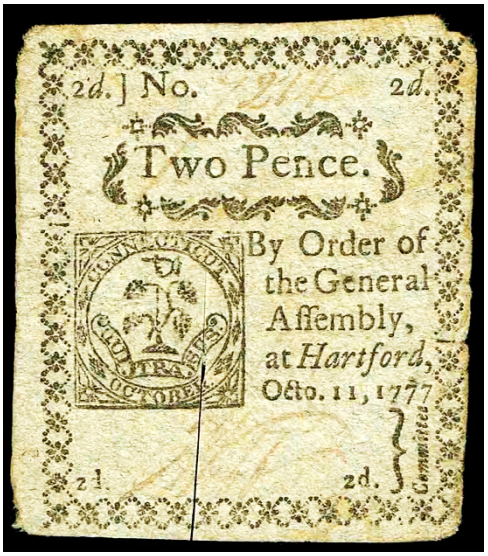
John Hickcox 1858

John Hickcox, in his 1858 *An Historical Account of US Coinage,* pointed out that Connecticut was the second state to coin coppers, only four months after Vermont, which was not yet a state. He gave the following account of the mint:

The Connecticut General Assembly on October 20th, 1785 granted permission to four men to coin money:

- Samuel Bishop
- Joseph Hopkins
- James Hillhouse
- John Goodrich.

The first two were also members of the State legislature who signed Connecticut colonial currency. The State allowed the coiners up to £10,000 at 18 pence to the colonial shilling. This meant 3.6 million coppers!



Connecticut currency 2 pence. #2807

The story then gets complicated as only 23 days later four more men join the partnership called the Company for Coining Coppers (CCC):

- Pierpoint Edwards
- Jonathan Ingersoll
- Abel Buell
- Elias Shipman

The State required the coins be six pennyweights. One pennyweight is 24 grains. One grain, as most physicians know, is 65 mg — the reason many drug doses are still in multiples of 65. So144 grains is 9.33 grams. Walter Breen in his Encyclopedia claimed the legislated weight was 150 grains (9.72 grams) which is wrong.

The Statute also required a head with AUCTORI CONNEC, and on the reverse a female liberty (i.e. holding a manumission cap atop a pole) with an olive branch in hand and INDE ET LIB.

The state got 20% of the coppers minted payable six monthly for a five-year term. A board of five inspectors had to approve all coppers before circulation, which Hickcox said weighed 28,949 pounds (14.5 tons) amounting to 1,687,733 coins, or 337,547 coins each! One inspector was Roger Sherman, a signor of the Declaration of Independence, and a delegate to the Second Constitutional Convention. His original Lebanon, Connecticut house is 10 minutes down the road from my house.

Roger Sherman second from left in Committee of Five. Detail from John Turnbull's Declaration of Independence.

In April 1786 James Jarvis bought out Edwards', Shipman's, and part of Ingersoll's interest. During the summer, they closed shop as they ran out of copper. On September 10th, the seven unequal partners leased the mint to Mark Leavenworth for about eight weeks, who then bought into the partnership on November 1st.

After that the partners decided on a curious plan — to rotate operation of the mint amongst themselves with frequent changes in the division of shares. Shares owned in those days were fractional. Today partners in closely held companies instead own a specified number of shares of say 10, 100, or 1,000 shares.

In January 1789, the State appointed a committee to audit CCC, finding only a small balance of coppers due the State amounting to £8 and 3 shillings. They reported honorably on the mint. The owners list and shares were:

- James Jarvis 9/16
- James Hillhouse 2/16
- Mark Leavenworth 2/16
- Abel Buell 2/16
- John Goodrich 1/16

Hickcox said the mint ran for three years i.e. 1785 to 1787.

Montroville Dickeson 1859

Photograph of Montroville Dickeson which came with my copy of "Numismatical Manual"

A year after Hickcox's book, Montroville Dickeson (1810–1882) published *The American Numismatical Manual.* Dickeson left his medical residency and traveled the South from 1837 to 1844 to study archeology. His Connecticut copper description differed little from Hickcox's. Dickeson added that operations ceased in June 1787, though correctly noted 1788 dated coins. He said Major Eli Leavenworth prepared blanks, which may have been struck in New York with dies and machinery moved there for perhaps 1788 coppers. He identified Abel Buell as constructing a press that made 120 coins a minute!

The US Mint weighed the coppers at 94 to 144 grains (6.09 to 9.33 grams). Dickeson wrongly said that the Statute specified 9.33 grams. It specified 7.78 grams.

Hickcox listed no varieties. But Dickeson listed "types" (i.e. obverses) and "varieties" (i.e. pairings with reverses):

	Obverse type	Varieties (pairings)
1785	8	8
1786	11	26
1787	73	164
1788	25	34
Total	117	232

Dickeson's classified his obverse types by lettering, punctuation, and head type and orientation. He said the die maker intended the bust to represent George III, adding "we must suppose … the artist … had not heard of the recognition of our national independence"! He also commented, "we must conclude the art of design was at so low a standard…" Well said!

Dickeson also discussed some varieties including "Africanus, or negro head", and mis-spellings like: AUCIORI, AUCTOPI, AUCTOBE, CONNECT, INDE ET LIR. Even before the Civil War, Dickeson had listed 232 pairings of Connecticut coppers with much adjunctive information.

Sylvester Crosby 1875

Crosby's *Early American Coins* quoted Bushnell's *Numismatic Notes*, identifying Hon. Henry Meigs, who said Connecticut coppers were minted in New Haven. Charles Ira Bushnell (1826–1880), a New York City Attorney, published 50 copies of *Crumbs for Antiquarians*. This may have been what Crosby was referring to as *Numismatic Notes*.

Charles Ira Bushnell #1 in Sage's Numismatic Gallery. Courtesy of StacksBowers.com

To digress for a little, Bushnell was the Chapman Brother's uncle. Lorin Parmelee bought Bushnell's entire collection in 1882, kept a few pieces and sold the rest via the Chapman Brothers. The auction was sensational, listing over 3,000 lots with photographic plates. The catalog cost $5 at the time (nearly a week's wages for a factory worker).

Bushnell said Meigs gave two mint locations:

- Morris Cove on the right of the harbor going up about two miles from the light house
- The foot of West Rock at Westville, two miles inland from New Haven.

Crosby says: "The building was a small frame house … painted red. Messrs. Broome and Platt, New York City merchants who lived next door, must have had a subcontract for the manufacture of (Connecticut) state coppers, as Mr. Broome superintended the mint". Numismatic writer Walter Breen said the mint was on present-day Water Street in New Haven.

Crosby identified Abel Buell as the die maker and gave tables of obverse types. He used Arabic numerals for the obverse types and letters for the reverse types to denote pairings, a practice still used today. Again, he listed obverse and reverse types entirely by legend and punctuation and included all known pairings:

	Obverse	Reverse	
1785	8 types	8 types	many pairings
1786	7 types	10 types	many pairings
1787	43 types	34 types	many pairings
1788	16 types	14 types	many pairings

Crosby follows these tables with further notes on many of the types, including African Head, Hercules Head, and Mutton Head together with rarity ratings. He also used the term mailed bust, draped bust and fillet head (ribbon around the head). MBR, MBL, and DBL means mailed bust right, mailed bust left, and draped bust left.

African head left, Mutton head right (both MBR) Courtesy Heritage Auctions, HA.com

Connecticut had ratified the US Constitution on Jan 9th, 1788. When two-thirds of the original 13 states ratified the Constitution, it became law. That happened on June 21st, 1788 when New Hampshire became the ninth of thirteen states to ratify the Constitution. The Federal Coinage Act which the Continental Congress had originally passed in April 1787 then became law, making coining money a federal not a state prerogative.

Crosby noted that the Connecticut Assembly officially suspended the 1785 coining grant on 20th June 1789.

Jarvis changed CCC to his own company on June 1st, 1787, ostensibly to coin Fugios, but his real business was counterfeiting Connecticuts.

Robert Vlack 1965

In 1965, Robert Vlack (1927–2015) wrote *Early American Coins,* the first book to specialize in colonial American coins. He worked as an Army medic during the Second World War and became a missile engineer after the war. He retired aged 50 to be a coin dealer and also served as a legislator in the New Hampshire House of Representatives.

Vlack identified Abel Buell as the principal die sinker of Connecticut coppers and the person who made the machinery for the mint. He recorded that business stopped June 1st, 1787. But as 1788 coins are common, he assumed the business continued after June 1st.

Vlack said William Buell (son of Abel) removed the Connecticut and Fugio dies from New Haven and coined coppers with Reuben Harmon of Vermont.

Samuel Atlee, Thomas Machin and Reuben Harmon formed a partnership in 1787. They struck Fugios in Rupert, Vermont, and Connecticut coppers and counterfeit George III halfpennies in Machin's Mills in Newburgh, New York State.

Vlack noted:

1. Some 1788 Connecticut coppers were struck with old 1787 dies (now called "biennial pairing").
2. Many specimens were under-weight.
3. Many were struck over other coins, especially Nova Constellatio coppers.
4. Many Connecticut coppers were muled with Vermont and counterfeit George III halfpenny dies.

Vlack therefore assumed that the 1788 and some 1787 Connecticut coppers were struck at Machin's Mills in New York State.

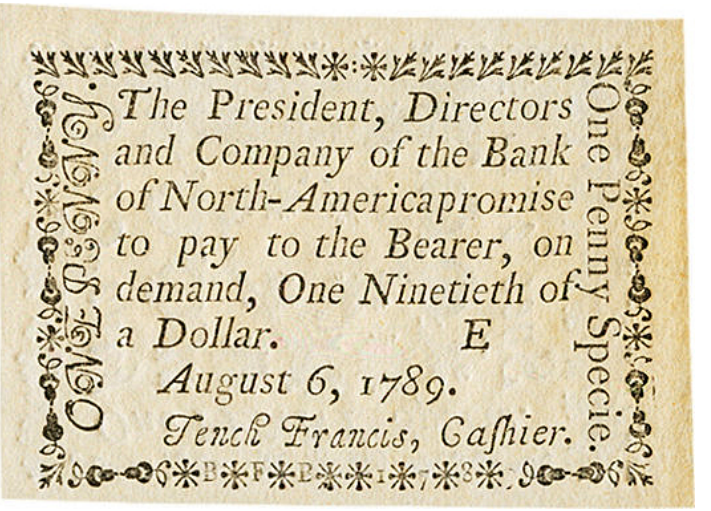
During George Washington's first year in office in 1789 coppers were America's commonest currency. A US Revolutionary private made just eight pence a day. America still used the British system of pounds, shillings and pence.

As counterfeiting increased, other counterfeiters dropped coin weights further to compete. In 1787 New Jersey refused coppers from any other state, though they accepted New Jersey coppers and Fugio coppers at 15 to the colonial shilling.

As Machin's Mills' operation flooded the market with spurious underweight coppers, people lost confidence. Breen even lists a variety (Breen 880) as weighing 2.2 grams! In August 1787 New York State changed from 14 to 20 coppers to the colonial shilling. Then in 1789 a copper panic started. People worried there was insufficient bullion copper in their small change. In 1789 the Federal government revalued coppers at 48 to the shilling (in Connecticut it had been 18 to the shilling). But merchants still refused coppers. On July 24th, 1789, a New York rum dealer advertised rum at 60 coppers to a shilling. Months previously it had been only 14 coppers per shilling. On August 3rd, 1789, the Philadelphia Federal Gazette reported the value of copper had fallen to 96 coppers to the colonial shilling (reflecting the bullion value of copper).

Ordinary people could no longer buy staple foods. Merchants even refused full weight Fugios. Many merchants went out of business.

On August 6th, 1789 the Bank of America in Philadelphia issued one penny and three penny paper notes. Curiously the public trusted this fiat paper money! Small businesses and even churches issued their own paper money. The crisis gradually faded. Though started by underweight counterfeit coppers, it was really a crisis of confidence. Vlack said Machin's Mills (the main culprit) closed down in 1791.



Bank of America 1 penny note
Courtesy of Heritage Auction, HA.com

Vlack listed 49 paired varieties with pictures and prices in Good, Fine and Very Fine condition in his 1965 book:

1785	MBR including African Head (mailed bust right)
	MBL (mailed bust left)
1786	MBR including Large Head
	MBL including Hercules Head
	DBL (draped bust left)
1787	MBR including Mutton Head
	MBL including Hercules head, Horned Bust, 1787/1788, and 1787/1877
	DBL including AUCIORI, AUCTOBI, AUCTOPI, CONNFC, CONNLC
1788	MBR
	MBL
	DBL

Walter Breen 1988

Walter Breen (1928 – 1993) was an extraordinary character. His encyclopedia was the first major work to cover the entirety of American Numismatics with authority, though sometimes overly dogmatic. He had a prodigious and eidetic (photographic) memory. He could list coin details, often including their provenance lists, from memory. After a degree in math, he enrolled in Columbia doing pre-med. There he became a protégé of William Sheldon (inventor of the endo-, exo-, and mesomorph body types), who would later steal rare early coppers from the American Numismatic Society.

Breen fortunately did not continue with medicine, but was a musician and got an M.A. in the sociology of music from the University of California, Berkeley. Often appearing at coin meetings in his trademark Santa Claus beard and tie-died tea shirts, Breen also took part in John Ford Jr's scams. Breen died in prison as a recidivist child sex offender.

Breen noted that INDE ET LIB, imitated later by Vermont coppers, was taken from the French indepéndance et liberté. He said Buell engraved all 1785 Connecticut copper dies except the African Head. In 1786 James Atlee engraved counterfeits, so Buell engraved the MBL to distinguish his real Connecticut coppers.

By 1787 Jarvis became the majority stockholder of CCC. He dissolved CCC and reorganized it as a Fugio mint. But Jarvis' profit center was illegal 1787 draped bust Connecticut coppers. Jarvis then went to Europe to get copper and a large quantity of Fugio dies. While away, his son-in-law, Samuel Broome, likely with Jarvis' encouragement, embezzled over 30 tons of federal copper to make 3.5 million illegal lightweight Connecticut coppers. Jarvis got the Fugio contract and copper from the head of the Board of Treasury, Col. William Duer, for a $10,000 bribe, which he never paid.

Congress voided Jarvis' contract in September 1788 and sued him. He had only ever sent 0.4 million Fugios in May that year.

Abel Buell was a mechanical genius. Connecticut convicted him in the 1760s of counterfeiting 2½ to 30 shilling notes. They cropped his ear and branded a C on his forehead. Buell invented hubbing, a method later adopted by the Philadelphia Mint.

Abel deeded his share of Jarvis' company to his son, Benjamin, and fled to Europe. But, as Bowers comments, although authorities were keen to prosecute counterfeiters of silver, gold, and paper money, they were lax about counterfeiters of copper. Perhaps this is why Abel Buell stuck to coppers in his later years. Breen says Jarvis made the 1787 draped busts with small letters (Breen 803–805).

Machin's Mills then bought out Jarvis' equipment from New Haven where they made more 1787 and 1788 Draped Busts and MBR and 1788 MBL coppers.

Why did Benjamin Buell not go with his father to Europe? Because the apple does not fall far from the tree. Benjamin started counterfeiting Connecticut coppers himself in April 1789, but within a few weeks he sold his equipment to Machin's Mills.

Meanwhile Walter Mould, legally making New Jersey coppers at the Morristown Mint, decided to get in on the action. He counterfeited the 1787 Laughing Head and Horned Bust Connecticut coppers. Mould also sold his equipment to Machin's Mills in about June 1788 to flee to Ohio to avoid debtor's prison.

Other counterfeits include the 1787 Muttonhead (with a topless liberty), and one with a Britannia reverse.

Breen identifies over 340 varieties from six different mints and two other places. He lists 142 of these varieties in his Encyclopedia, rightly commenting that Connecticut coppers are the most complex colonial specialty.

He lists:

1785 - CCC, New Haven Br 736–740
- Unidentified Private Mint Br 741

1786 - James Atlee New York, and maybe Rahway Mint, New Jersey Br 742–756
- CCC New Haven Br 747–760
- Bungtown mint ?Swansea, Mass. Br 761–762

1787 – Private mint Muttonheads, Br 763–765
- Morristown Mint New Jersey Mould and Dudley Br 766–771
- Benjamin Buell backdated Br 772–783
- Machin's Mills Br 784–792
- CCC January to June 1st, Br 793–802
- Jarvis & Co. June 1st – September 1788 Br 803–854

1788 – Machin's Mills Br 855–871
- Jarvis & Co ? New Haven Br 872–880

Q. David Bowers 2010

Bowers wrote the *Whitman Encyclopedia of Colonial and Early American Coins.* In it, he adds further information on Connecticut coppers.

Bowers devotes 67 pages of his 316-page book on colonial coins to Connecticut coppers. Of these 67 pages, four pages are general discussion and the rest lists. He incorrectly says Inde et Lib is Latin. The Latin for independence and liberty would be Libertatem et Libertas!

Bowers identifies the later four CCC partners, Edwards, Ingersoll, Buell and Shipman, as joining in November 1785. In February 1786, Ingersoll and Edwards sold their 1/16 shares to Goodrich. In March and April 1786 Hopkins, Edwards, Shipman and Ingersoll also sold out. This left only Jarvis and three original partners: Bishop, Hillhouse and Hopkins.

On September 10th, 1786 CCC leased their business to Mark and William Leavenworth and Isaac Baldwin for six weeks (who probably had extra copper and wanted to make extra money). Bowers comments that no one knows whether Jarvis' operation was state sanctioned as his main business was Fugios.

In 1788 Major Eli Leavenworth (a relative of the other two Leavenworths) cut blanks which he had struck as Connecticut coppers and other coins in New York. Bowers comments that Breen's classification of six different mints were a little too neat for modern specialists.

In 1919 Henry C. Miller (1824–1920) published in the American Journal of Numismatics and in 1920 published a book entitled *The State Coinage of New England*, which expanded Dickeson's and Crosby's systems. He used a combination of dates, legends, and punctuation. Not the first thing to strike one's eye! Connecticut copper collectors still use Miller's numbering system.

He used two numbers for the obverse. One for a basic style and a superscript for slightly different features e.g. 1^1,1^2, 1^3. Today we write this, 1.1, 1.2,1.3. He listed reverses as A–Z, a–z, then AA–ZZ.

Dr. Thomas Hall formed a Connecticut copper collection in the 1870s which Virgil Brand acquired in 1909. Brand (1862–1926) was a beer magnate from Chicago. A hoarder par excellence, his estate included over 350,000 coins valued at over $2 million!

Another collector, William Hays, amassed a collection of 277 Connecticut coppers which sold in 1903 to Hillyer Ryder, then passed to FCC Boyd, Wayte Raymond, then to bête noire, John Ford Jr.

Bowers comments the 1785 planchets are heavy, dark, and fissured. MBR all have three grapevines. To me most coins do not even show the grapevines — hardly helpful! Most 1786 MBRs are counterfeits showing George III. 1787 are mostly DBL; those with small letters are Jarvis', and with large letters are CCC. 1788 has fewer varieties.

Bowers lists types of stops:
- period (stop) i.e. dots
- + or x. ⏋ is a cross, + is a crosslet
- quatrefoils and cinquefoils
- grouped dots
- phaeon (horizontal arrowhead)
- fleuron (horizontal flower with stem)

He lists the following problems for the series:
- seldom problem-free
- unartistic
- complex
- poorly struck
- often planchet flaws
- weights steadily declined with time

Bowers comments: "The Miller system of die variety attribution is daunting to many… Well-worn coins are sometimes difficult or impossible to classify. Moreover, the prospect of gathering several hundred die combinations, many of which take careful study with a magnifying glass to differentiate, deters many."

The Red Book says in total: "The State of Connecticut authorized a mint near New Haven to Samuel Bishop, Joseph Hopkins, James Hillhouse and John Goodrich in 1785. …most were coined under a subcontract by Samuel Broome and Jerimiah Platt, former New York merchants. Abel Buell was probably the principal die sinker." They then list 38 priced varieties, including: 1785 MBL, MBR; 1786 MBL, MBR, DBL; 1787 MBR, MBL, DBL; 1788 MBR, MBL, DBL.

Philip Mossman 2019
Mossman wrote an article in the summer 2019 C4 (Colonial Coin Collectors Club) Newsletter called *A Connecticut Type Collection.*

He says there are now 354 types. Mossman used an unpublished book by Randy Clark entitled, *The State Coinage of Connecticut*, which used another criterion (beyond Miller's) to identify coins - whether the die was hand-cut or hubbed. Except for the 1785 MBR, all CCC coins were hubbed. Minters paired some dies in successive years. This is called "biennial pairing". Biennial means two years, biannual means twice a year.

The latest dizzying directory of depressing designs follows:

1785 31 types
MBR – 27 hand-cut varieties include nicknamed African, Roman, Goatee, and Round Heads
MBL – 4 hubbed varieties

1786 41 varieties
4 hand-cut MBR (fakes) nicknamed Double Chin, Scholar's Head Round Head, Broad Shoulders.
Hand-modified hubbed die MBL Hercules Head
CCC hubbed dies MBL (16 obverses) DBL (2 obverses).

1787 245 varieties
Hand engraved MBR and MBL 13 anonymous issues
Hand embellished hubbed dies 5 issues
Hubbed dies with peripheral variations
- 12 MBLwith triple leaves
- 114 DBL yielding 213 varieties

1788 38 varieties
Mostly counterfeit Machin's Mills.

To summarize:

1785 CCC Mint in New Haven issues MBR and MBL with Buell's dies
1786 CCC Mint continued with MBR and MBL Breen says added DBL to differentiate from fakes
1787 till June 1st, CCC Mint mainly DBLs with large letters
1787 after June 1st CCC becomes **J Jarvis and Co.** (also referred to as the **Company for Minting Coppers**). We do not know whether the State of Connecticut sanctioned this.

J. Jarvis & Co. June 1787 to September 1788.
Jarvis got a contract for 31 million Fugios and stole 30 tons of federal copper. He did this by offering a bribe of £10,000 to the head of the Board of the Treasury, Col. William Duer, which he never paid. Instead, he contracted with his father-in-law, Broome, and partner Platt to make fake underweight 1787 DBL coppers. These have cinquefoils and smaller lettering than earlier 1787 coppers (Breen 803–805). He struck 3.5 million of them.

To allay suspicion, Jarvis struck Fugios from late 1787 to May 1st, 1788 at the Connecticut mint, delivering 560,000 of them. He had contracted to strike 32 million! Otherwise from June 1st, 1787 to September 1788, he made 1787 DBLs. Abel Buell engraved the Connecticut and Fugio dies and managed the mint for him. Buell constructed a minting machine capable of striking 120 coins a minute. We have no documentation how he achieved this.

In August, Jarvis had his father-in-law, Samuel Broome ask Alexander Hamilton to represent him in Congress, who declined. Broom's own son worked for Alexander Hamilton. In September 1788 Congress moved to collect the embezzled copper and voided Jarvis' contract. Jarvis, realizing his time was up, sold his New Haven mint equipment to Machin in September. In January 1788 he set sail with his father-in-law to Paris, where they tried (unsuccessfully) to set up another mint. Col. Duer ended up in prison.

Walter Mould, in **Morristown Mint** NJ, struck fake Connecticut coppers including horned bust (commonest Connecticut copper today).

In April 1788 Benjamin Buell also sold his equipment to Machin's after making some 1787 and 1788 fakes. In June, Mould also sold his equipment to Machin's and skipped state. Most 1788 Connecticuts are from Machin's.

Recent developments on Connecticut mints

Researchers have studied two sets of ledgers kept in the Connecticut Historical Society. One set details financial transactions of the Jarvis, Broome, Platt contingent. It covers transactions from February to December 1788. A second set of ledgers of the Leavenworth, Baldwin, and Leavenworth contingent covers operations from 1786 to mid 1787.

Hamden Copper Works site Courtesy Googlemaps

They dispersed the Connecticut coppers by selling them to merchants in batches of 100 or 1,000. Some merchants bought their own Connecticut die. When they wanted more coppers, they would go to the mint and take whatever die pairing was available to strike more coppers. The mint also used the coppers to pay mint workers, to buy materials, and to pay business owners. Workers and owners then spent the coppers primarily in New Haven County.

They paid the State of Connecticut a 5% royalty for the privilege of striking coppers. These uncirculated coppers accumulated in the State Treasury, who sold them for securities or bullion in 1790. In 1788 Jarvis, Machin and Mould could buy Nova Constellatio coppers for 24 to the shilling. They overstruck them as Connecticut coppers and passed them at 18 to the shilling.

On March 18th, 1785 Silas Hotchkiss sold a quarter of the rights to his mill, called the Ford Mill (see above) for £65 to Pierpont Edwards, one of the CCC partners. Jarvis also rented this mill on March 1st, 1787 for two consecutive periods of one year, which included permission to erect a building for a furnace. That same mill sold in 1798 to Eli Whitney. On January 5th, 1787 Sabin sold his mill (see above) to Charles Chauncey, Pierpont Edwards and James Hillhouse (the last two being partners in CCC) for £75. Jarvis rented Sabin's Grist Mill on Mill River in Hamden for four months starting June 12th, 1787. This mill also sold to Eli Whitney, who built his armory there.

Both mills were adjacent on Mill River in Hamden, now part of New Haven close to the Eli Whitney Museum on the map above.

I only collect type Connecticut coppers as I find them poorly struck, inartistic, complex, and unappealing. The 1788 MBL shows the Connecticut shield with the grape vines nicely, which seldom show up on these coins.

References

Betts, Charles W., *American Colonial History Illustrated by Contemporary Medals*. Scott Stamp and Coin Company, NY, NY 1894 (Available as Kessinger Legacy Reprint)
Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American coins*. Whitman Publishing, Atlanta, GA 2009
Breen, Walter H., *Complete Encyclopedia of U.S. and Colonial coins*. Doubleday Books, NY, NY 1988
Crosby, Sylvester S., *Early Coins of America*, Published by the Author, Boston, MA. 1875
Dickeson, Montroville W., *The American Numismatic Manual*. Second Edition J.B. Lippincott & Co., Philadelphia, 1860.
Hickcox, J.H., *An Historical Account of American Coinage*. Albany, NY. 1858. Bowers and Merena reprint 1988.
Knipe, J., *Locating the Copper Works at Hambden*. C4 Newsletter, pp 23-46. Fall 2017 Vol 25, No. 3.p 23Miller, Henry C., *The State Coinage of New England*, American Numismatic Society, New York. 1920
Mossman, Philip L., *Money of the American Colonies and Confederation*. ANS, NY, NY. 1993
Nipper, Will, *In Yankee Doodle's Pocket*. Bowmanstone Press, Conway AR. 2008
Rosen, J., Clark, R., *Connecticut Manuscripts Concerning the Company for Coining Coppers* pp32 -43. C4 Newsletter, Volume 25, No. 1., Spring 2017
Ryder, H., *The State Coinages of New England*. American Numismatic Society. New York 1920
Vlack, Robert A., Early American Coins. 2nd Edition. Windsor Research Publications, Inc., Johnson City, NY 1965
Yeoman, R.S., *Guide Book of United States Coins*, Whitman Publishing, Racine, WI. 1947
https://en.wikipedia.org/wiki/Roger_Sherman#/media/File:Declaration_of_Independence_(1819),_by_John_Trumbull.jpg

2935

1785 Mailed Bust Right Connecticut Copper; Miller 6.3-G.1 PCGS XF 45

2934

1786 Mailed Bust Left Connecticut Copper; Miller 4.1-G. PCGS XF 45

2936

1786 Mailed Bust Right Connecticut Copper; Miller 2.1-A PCGS VF 35

1605

1787 Hornless Horned Mailed Bust Left. Miller 4-L; 28mm, 8.71 Grams EF

2938

1787 Mailed Bust Right CT Copper, Muttonhead/Topless Liberty; Miller 1.2-C PCGS XF 40

1449

1787 Draped Bust Left Connecticut Copper. Miller 33.16-Z; 28mm, 7.57 Grams VF

1450

1788 Mailed Bust Left Connecticut Copper. Miller 11-G; 27mm, 7.39 Grams EF

2937

1788 MBR Connecticut Copper. Miller 2-D. NGC AU Details

CHAPTER TWENTY-TWO
NEW YORK STATE COPPERS

The present chapter on New York colonial coinage encompasses three overlapping areas:

- New York State coins
- Machin's Mills coins (made in New York State)
- Counterfeit British halfpence

In the first section I will take a historical tour of New York coins and then deal with individual coins.

In the second section I will cover counterfeit British halfpence and Machin, the man who struck many coins in New York State.

Section One.
New York State Coins

Historical tour of New York coins

Hickcox (1858) lists US coins by year describing each coin. He includes some New York coppers, but does not classify them.

Dickeson (1859) lists New York coins by date:

- 1786 Non Vi Virtute Vici, which he calls the New York Washington penny, because Washington's head is on the coin. He lists two types and four varieties and says England made them.
- 1787 gold coins which he calls "Blasher".
- 1787 Immunis Columbia.
- 1787 Nova Eborac. He says the goddess, Liberty on the reverse looks like Britannia, thus is presumably from England. Dickeson described a head left and a head right Goddess, each with three varieties. He quoted a fable that England shipped eight tons of the coins, which sunk at sea. The mermaids then quarreled over them to use them as head ornaments!
- 1787 LIBER NATUS (standing Indian) with eagle on a half-globe four types he says were from England.
- 1787 LIBER NATUS (standing Indian) with shield and two figures reverse (New York State arms), three types and five

varieties. He did not talk about their origin but likely thought they came from England.

Dickeson said that New York State documents showed no records of these New York State coins.

Crosby (1875) wrote much more detail. He quoted Bushnell who said John Bailey and Ephraim Brasher petitioned the state for a copper franchise on February 11th, and March 3rd, 1787. Thomas Machin also petitioned them on March 3rd, 1787.

The New York State Legislature formed a committee for regulating copper coins. Crosby quotes their report on circulating coppers. There were:

- a very great number of imitation British halfpence (underweight) called Birmingham coppers
- a very considerable number of New Jersey coppers
- a number of Irish halfpence
- a few regal halfpence (presumably many dated 1749).

The Committee recognized people profited by coining coppers. Regal coppers were 48 to the pound avoirdupois; Birminghams were 60 to the pound; genuine New Jerseys were 46.4 to the pound. Copper planchets cost 20 local pence for a pound that they could strike into 60 underweight coppers, a 200% profit!

The New York Legislature then passed "An Act to regulate the circulation of copper coins in this state" on April 20th, 1787. It specified that no coppers less than 48 to the pound pass, and that they would fine people who passed underweight coppers. (Counterfeiting silver or gold was punishable by death). They also raised the number of coppers per New York colonial shilling from 14 to 20. Crosby also said England made most New York State coppers (not imitation halfpence).

Vlack (1965) called the imitations of British George III coppers "Bungtowns", which he said included Machin's Mills pieces. He identified Bungtowns as the reason New York outlawed them in April 1787. Today Bungtowns refer to non-Machin's George III counterfeit halfpence.

Vlack said a several New York State coppers were punch linked to James Atlee in America. Presumably Atlee made these for Machin to present with his petition for a New York franchise in March 1787. When they denied his petition, Machin used the dies up anyway. Vlack also identified Nova Eboracs struck over other State coins suggesting an American not an English origin.

Vlack listed:

- 1786 Non Vi Virtute with three reverses
- 1787 Excelsiors (NY State arms)
- 1787 Standing Indian and George Clinton
- Immunis Columbia
- Nova Eboracs
- Brasher gold coins.

The Brasher doubloon mystified Vlack. There was no shortage of Portuguese and Spanish gold. He felt Brasher was perhaps seeking to diversify his wealth into the coin minting business. When the New York Legislature denied his franchise petition, perhaps he wanted a memento of his engraving prowess. He struck his Excelsior dies on a gold planchet including his Lima imitation. Breen later said Brasher made the doubloon as a gold striking for a proposed copper coin though none have appeared in copper. Naturally, all of this is pure conjecture. The half doubloon is thinner and not just a clipped doubloon. Brasher used his EB punch to certify the gold content.

A classification of New York State coppers (excluding imitation halfpence) is:

- Non Vi Virtute
- Excelsior (and related Brasher doubloon)
- Standing Indian and George Clinton
- Nova Eborac

The Immunis Columbia is now considered as a speculative American token rather than New York State coinage.

Non Vi Virtute #856 **Standing Indian** #683

Excelsior #683 **Brasher obverse** #721

Clinton #456 **Nova Eborac Obverse** #430

On April 18th, 1787 (the same day New York forbade underweight coppers) Thomas Machin partnered with the Atlees. James was the minter, and his father Samuel was the brewer. They sold out their New York Brewer's Mint equipment to Machin.

Machin's other three partners were Attorney James Giles, David Brookes, and James Grier. The six members each contributed £50 totaling £300. Machin contributed his buildings, the Atlees their equipment, and the remaining three each contributed another £10 for converting Machin's Mills into a mint.

Was it a coincidence that the partnership formed the same day as the Legislature passed the law? Or was it a pre-arranged fallback partnership in case the franchise failed? They

called it a "Partnership for the manufacture of hardware" — a euphemism for coining coppers. James Atlee had also been waiting to see if he would get the Fugio franchise. But he was unaware that James Jarvis had bribed Duers, head of the US Treasury, for the Fugio franchise.

Machin then bought out Reuben Harmon's Rupert, Vermont Mint, on June 7th, 1787, together with Harmon's 1785 Vermont franchise.

The Rupert Mint had four equal partners. They included Col. William Coley and Daniel van Voorhis, both previous partners from 1784 to 1785 in a New York Silver and Goldsmith company called *Van Voorhis, Bayley, Coley and Cox*. Albion Cox left in April 1785, and Bayley in July. Coley and van Voorhis joined the Rupert partnership in 1785. Elias Jackson from Litchfield County, Connecticut was the fourth Rupert Mint partner. After these four partners joined Machin's original six there were now ten in the partnership.

Machin thus had Atlee's Connecticut copper dies, and the Vermont franchise. After failing to get the New York franchise, he also minted underweight imitation British halfpence. Although New York State had outlawed underweight coppers, people were still familiar with them and still used them. There was no law that prohibited their manufacture, just prohibiting spending them. The Vermont franchise was legal. Machin built a large facility on land owned by New York Governor George Clinton, whom Machin knew well. He started building his mint in 1784, and started striking coins after June 7th, 1787.

After the Rupert's Mint partnership with Machin, Rupert continued for a while, possibly as Machin's was not up and running yet. The two later merged but no one knows when.

Early Rupert planchets were of poor quality, full weight, carefully struck, and well engraved i.e. 1785, 1786, and early 1787. By contrast, Machin's used good quality but underweight planchets, poorly engraved and poorly minted. In addition, Machin made illogical mules like Vermont with Immune Columbia and Britannia.

On June 1st, 1787 James Jarvis' New Haven, Connecticut Mint closed. Their engraver, Abel Buell, sailed to Europe, leaving the dies with his son William, who struck Connecticuts for a while then sold out to Machin. Jarvis also had the Fugio franchise got by a bribe the he never paid. Reuben Harmon took over the Fugio franchise then possibly minted Fugios at the Rupert Mint. Now Machin minted imitation halfpence, Fugios and state coinage of New York, Connecticut, and Vermont. See page 290 for a diagram of who went where and when.

They struck one third of 1788 Connecticuts on Nova Constellatio coins. Eli Leavenworth shipped Machin planchets which included unused Nova Constellatios (which Robert Morris and Gouverneur Morris had ordered struck by Thomas Wyon's Birmingham, UK mint for circulation in New York City). Vlack says the overstrikes on Novas may have been Machin's revenge against Governor Clinton for not getting the New York franchise! More conjecture! Machin knew it was not his friend Clinton's fault. This would not be becoming behavior for a freemason.

They awarded the New Jersey franchise in 1786 to Cox, Goadby, and Mould. When they found out that Walter Mould had been imprisoned in England, Cox and Goadby split from Mould. Cox and Goadby kept a franchise for two thirds, and Mould for a third of New Jersey coins. Mould then sold out his Morristown, New Jersey equipment to Machin in July 1788 just in time to abscond in September to Ohio, as he could not pay his debts.

Machin's New Jersey dies had defective letter punches for letters A, N, and T, which were also used on other Machin coins. Machin also made mules of New Jerseys with George III, Vermont, New York, Novas, and Connecticuts. We also know of 1788 Connecticuts and Vermonts overstruck on New Jerseys.

Machin erected several buildings on Governor George Clinton's land. The land was on the east side of Lake Orange in present-day Newburg, New York. One building was the

Machin Mint 220 yards east of the lake. On page 191 of Crosby he gives a description of the mint, according to Bushnell:

> *The building was erected in 1784 by Thomas Machin, and was still standing in 1792, at which time the roller press and cutting machine were taken out. The coins were struck by means of a large bar loaded at each end with a 500 pound ball, with ropes attached. Two men were required on each side…beside a man to set the planchets.*

Machin's Mills applies to buildings that used water power, perhaps to roll copper and cut out planchets. In 1788 Leavenworth shipped Machin extra planchets, perhaps to ramp up production. He minted the coins on a screw press, which did not need water power.

Thomas Machin's son said the neighbors suspected the Mint House operations were illegal because workers wore masks to frighten off children, and they worked during the night. But the Vermont franchise was legal. And other states had not yet prohibited minting coppers.

The copper Panic in July 1789 likely stopped or slashed production. For the next 18 months copper passed at a quarter of the value, which would have meant increasing well beyond 80 coppers to the pound to make any profit. Thus, Machin's production probably lasted from July 1787 to July 1789.

1788 may have been more productive. Though Crosby quotes Simms, in the History of Schoharie County (page 202), saying:

> *At his mills perhaps a thousand pounds of copper was manufactured (i.e. 60,000 coins at 60 to the pound), as appears by the papers, in the year 1789; previous to which little seems to have been done.*

Estimates for total production from 1787 to 1789 would therefore be 100,00 to over 300,000 coins. On October 14th, 1789 James Atlee wrote to Machin requesting they dissolve the partnership.

In 1974, Vlack made two photographic plates of imitation British halfpence attributed to Machin's Mills. Today we list Machin's Mills imitation British halfpence by Vlack numbers.

An interesting point is that so much information on colonial numismatics is theory rather than fact. Breen loved dogmatism. Bowers quotes James Spillman, CNL Editor, who pointed out that long-standing theories morph into facts. The "Atlee broken A letter punch" may not even be Atlee's. Engravers bought these punches from jeweler suppliers and shared them. Thus, the whole subject of punch linking coins may not reflect a common engraver or mint. Bowers points out that we do not even know whether James Atlee engraved dies! Gary Trudgen says Walter Mould taught him how to engrave.

I will now turn to individual New York State coppers. Breen gives the following list:

Individual New York coppers per Breen

Coin	Date	Engraver	Mint	Coppers per pound	Obv	Rev	Specimens	Notes
Non Vi Virtute	1786	Atlee	Atlee NYC	60	Washington	Liberty & Justice	? <10	Punch linked to 1786 CT MBR and 1786 Rahway NJ
Excelsior	1787	Bailey Brasher	Bailey NYC	46-55	NY Arms	Eagle	28-36	Peter Maverick engraved NY Arms 4/18/1786 NY paper
Nova Eborac	1787	Bailey, Rindell	Bailey NYC	52-60	MBR	Seated Lib	380-882	Bailey & Brasher samples for NYS franchise
Clinton	1787	Atlee	Atlee NYC	46-60	Clinton	NY Arms	~9	Atlee's patterns for Machin. Clinton was Machin's friend
Standing Indian	1787	Atlee	Atlee NYC	46-60	Std Indian	NY Arms or Eagle	18-20	Atlee's patterns for Machin
Imitation Brit 1/2d	76,78,85,7,8	Atlee	Machin	60-84	George III	Britannia	thousands	
Imitation Brit 1/2d	71,2,4,5,6,7,	Atlee, Mould	Machin	60-84	George III	Britannia	thousands	

Listing of individual Coins

Non Vi Virtute Vici 1786

The obverse shows what we think is an image of Washington with the translation, "not by violence but by excellence have I conquered". The reverse shows seated liberty and justice. This allegorical combination of holding the liberty pole with cap and the scales reflects the legend JUSTICIA ET LIBERTAS (freedom and justice), first used in 1785 speculative issues.

Breen said Non Vi Virtute are punch linked to the 1786 Connecticut Mailed Bust Right, and 1786 Rahway New Jersey coppers. He also says the engraver was James Atlee at his New York City Mint. However, Gary Trudgen and Bowers say the engraver and location are unknown. Two small, and 17–32 large heads are known.

Non Vi Virtute Vici 1786 Electrotype #856

Nova Eborac 1787

The obverse shows a mailed bust right with NOVA EBORAC around, short for Nova Eboracus, the Latin for New York. The reverse shows seated liberty holding a branch. Her shield shows the sun rising over mountains (part of the New York State arms). Around is VIRT ET LIB, standing for Virtus et Libertas (strength and freedom). Varieties are:

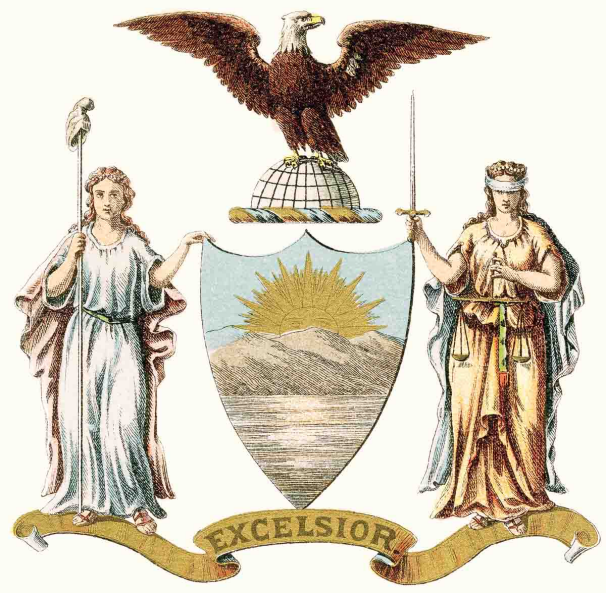
- Large bust. Crosby 2-C. 25–30 known
- Medium bust, reverse seated right. Crosby 1- A. 145–190 known
- Medium bust, reverse seated left. Crosby 1-B. 200–250 known
- Small bust. Crosby 3-D. 10–12 known

Apart from the counterfeit halfpence this is the commonest New York State copper. We think Bailey and his neighbor Brasher on Queen St., New York City struck these as samples for a New York franchise. They appear similar to Abel Buell's Connecticut obverse diademed mailed bust right.

1787 Nova Eborac Copper #430

Excelsior Coppers 1787

The obverse shows the New York State Seal, first adopted in 1778, and which Peter Maverick later engraved on New York currency dated April 18th, 1786. The seal depicts the sun rising over three mountains with the sea in front. An eagle perches on a globe above. The American eagle sits on top of the world. Liberty stands on the left and Justice on the right. On modern versions liberty steps on a crown representing freedom from British rule. Below is EXCELSIOR, the New York State motto, meaning "ever upward", "higher", or "superior". On the New York Coat of Arms, the Hudson River replaces the sea with two ships representing inland and foreign commerce. Also, the sun rises on a single, not three mountains.



Original NY State Seal 1778

The reverse shows an eagle. Bailey and Brasher also may have engraved and produced these coins. But they are much rarer and presumably were also trial pieces for their application for a state coinage franchise. They come as:

- Transposed eagle arrows 3–4 known
- Obverse eagle faces right 10–12 known
- Obverse eagle faces left 15–20 known

Excelsior Copper Courtesy Heritage Auctions HA.com

Brasher Doubloons

These show the New York Seal with EXCELSIOR below on the obverse and an eagle reverse. Brasher engraved the dies the same size as a halfpenny, but we know of no coppers struck from these dies, only the gold pieces. There are four types:

- Doubloon EB punch on eagle breast
- Doubloon EB punch on eagle wing
- Half doubloon, thinner planchet, not just a trimmed down doubloon
- Imitation Lima gold cob

Brasher Doubloon GMM copy #721

Atlee patterns for Machin franchise

Said to be engraved by James Atlee and struck in New York City. Some even doubt Atlee could engrave! Three types:

- George Clinton, with Excelsior New York Seal reverse. Machin fought during the revolutionary War under Maj. Gen. George Clinton, who later became New York's Governor. After receiving a chest wound Machin recuperated in Clinton's house and became friends with him. Machin may have been trying to curry favor with Clinton, thinking he would get the state franchise. The reverse shows the New York State Seal with EXCELSIOR below. Breen got hung up on whether engravers copied each other or Peter Maverick's paper money of 1786. But the state seal design appeared nine years earlier in 1778. E. Poultney, a Vermont grocer discovered the Clinton coin in 1859. W.C. Prime published it first in Harper's magazine in 1860. 8 - 10 are known. Bolen made 19th century copies of this with a J instead of a 1 in the date. He paired this with Excelsior, Indian, and eagle on half globe reverses.
- Standing Indian holding a tomahawk and bow. Around this is LIBER NATUS LIBERTATEM DEFENDO (born free, I defend liberty). State seal reverse. 12 known.
- Same obverse, with eagle on half globe reverse with NEO EBORACUS (New York) EXCELSIOR around. 6–8 known.

George Clinton Electrotype #456

Standing Indian NY Arms Electrotype #683

Standing Indian/ Eagle on Globe Electrotype #858

Gary Trudgen established that James Atlee's Mint was his father's (Samuel Atlee's) brewery in New York City. He lists this mint as producing:

- Most Group I counterfeit George III halfpence (more about this later).
- 1786 Connecticut MBR engraved by Atlee
- 1786 Inimica Tyranis with Decad reverse engraved by Walter Mould
- 1786 Non Vi Virtute engraved by James Atlee
- 1786 New Jersey date below beam. Engraved by Walter Mould
- 1787 Clinton and Indian engraved by James Atlee

Samuel Atlee (born in 1747) ran a brewery. Albion Cox shafted him for a $1,200 loan. Samuel, unable to pay, fled to Vermont then sold off his New York State landholdings to pay off the loan, then returned to brewing. His son James Atlee ran the brewery mint with Walter Mould. James then returned to England in 1794 where he became a wealthy brewer.

In the following pages I show electrotypes and struck copies of these rare coins. Only the Nova Eborac is original. I only have electrotypes of these coins as they are much too expensive to own.

References

Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American Coins*. Whitman Publishing, Atlanta , GA. 2009

Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins*. Doubleday, NY. 1988

Crosby, S., *The Early Coins of America*. Boston 1875

Hickcox, J. *An Historical Account of US Coinage.* Albany, New York. 1858

Roscoe, William E., History of Schoharie County, New York, 1713 – 1882. Forgotten Books, London, 2019.

Trudgen, G., *Samuel Atlee's New York City Brewery and Mint*. 2018. Pages 27-58. Journal of Early American Numismatics,

Vlack, R.A., *Early American Coins*. Johnson City. New York 1965

Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*. 72nd Edition. Whitman Publishing LLC Pelham, AL 35124

430

1787 Nova Eborac Reverse Figure Left. Breen 986; 27.5mm, 9.60 Grams EF

856

Atlee's Non Vi Virtute Vici Electro 1786. Breen 977; 29mm, 9.21 Grams EF

#726

BRASHER DOUBLOON, EB ON BREAST COPY; 29MM, 26.91 GRAMS UNC

#727

BRASHER HALF DOUBLOON, EB ON WING COPY; 26MM, 13.54 GRAMS UNC

2069

Lima Doubloon From 1715 Fleet. This is What Brasher Copied But 1742 Not 1712

456

ATLEE'S CLINTON ELECTROTYPE 1787. CLINTON/NY ARMS. BREEN 989; 27MM, 9.92 GRAMS EF

683

Atlee's Indian & NY Arms 1787 Electro. Breen 990; 27mm, 8.81 Grams EF

858

INDIAN & EAGLE ON GLOBE 1787 ELECTRO; 27MM, 14.00 GRAMS VF

Section Two.
Imitation George III halfpence

There are four main types of George III coppers which circulated in America:

- **Regal** coppers, British or Irish
- **Struck counterfeits**, often grouped in families by Atkins and Kesse:
  a. American either Machin's, or Bungtown (e.g. North Swansea, MA, Barneysville MA, and Westerly RI).
  b. English, Birmingham and other mints
- **Evasion coppers** i.e. miswording or misspelling legends to evade English counterfeit laws. Includes satirical coppers. Subevasions are now called imitations really date evasions i.e. wrong date
- **Cast counterfeits**

(Canadian Blacksmiths Tokens made in the 1820s and 1830s circulated in Canada.)

Examples of the first four types follow. Notice that American counterfeits have no outline of the Union Jack on the shield whereas the English ones do.

British Regal halfpenny # 419

Irish Regal halfpenny #1846

Birmingham counterfeit halfpenny long neck family #764

Aging George counterfeit halfpenny #2119

Above was originally AK-144 family, 1772, newly named in 2004 because George seemed to age with the passing of dates 1771, 2 and 3!

Counterfeit Irish halfpenny #2119

Evasion halfpenny Atkins 379 #343

Sand cast English counterfeit halfpenny
#1845

The main collecting areas for American colonial coin collectors seems to be:

- Machin's Mills
- Other struck copies (listed by Anton and Kesse, see references), listed by AK numbers.

Until 1750, Birmingham, England, coiners made sand cast counterfeits of regal coppers. After several prosecutions, minters switched in 1751 to struck counterfeits, typically at 72 to the pound. They sold them at a discount to English merchants and employers, who passed them out in change and as pay. Many made their way to America.

I went on an American Numismatic Association tour of Colonial Williamsburg. There we spent a morning making our own sand cast British halfpenny. Not that difficult to do, and casually quite a convincing coin!

Sand cast halfpenny made by author #913

In 1785 The Faithful Steward sailed from Londonderry, Northern Ireland, to Maryland. She sank off the Maryland coast, carrying a huge number of counterfeit British halfpence.

Bowers comments that George III halfpence now attributed to Machin's Mills have:

- Alphanumeric or device punches shared by late Vermont, Connecticut counterfeits and other state coinage
- saw tooth dentils
- 1 not J in the date
- non-outlined Union Jack on the shield
- no berries in the wreath on the head
- George has plumped up lips!

These include most 1778 (Machin's Great Chain commemorative), 1787 and 1788 George III halfpence.

Numismatic researcher, Gary Trudgen, divided American made regal struck counterfeits into three groups:

Group I Mould-Atlee Made 1786 in New York City. Dates 1771, 1772, 1774, 1775, 1776.

Trudgen Group I halfpenny #388

Group II Bailey-Atlee. Made early 1787 in New York City. Dates: 1747 (George II), 1787. E and O of GEORGE run together. X is Brasher's punch with wide bases to the X.

Trudgen Group II halfpenny #390

Group III Atlee in Machin's Mills. Made later 1787 and 1788. Dates 1778 (Machin's "Great Chain Commemorative"), 1787 and 1788.

Trudgen Group III halfpence #421& #758

I collected these examples of Groups I, II, and III, in 1992, almost 30 years ago, just 8 years after I started collecting coins.

It is beyond the scope of this chapter to get into further details of the differences between types of counterfeit British and Irish coppers. Some people specialize in this area alone. What follows is a history of Machin as he has such pervasive importance for American colonial state coppers.

They struck regal George II halfpence 1729 to 1754 (except 1741). They struck regal George III halfpence only 1770–1775, 1799 and 1806–1807.

History of Capt. Thomas Machin

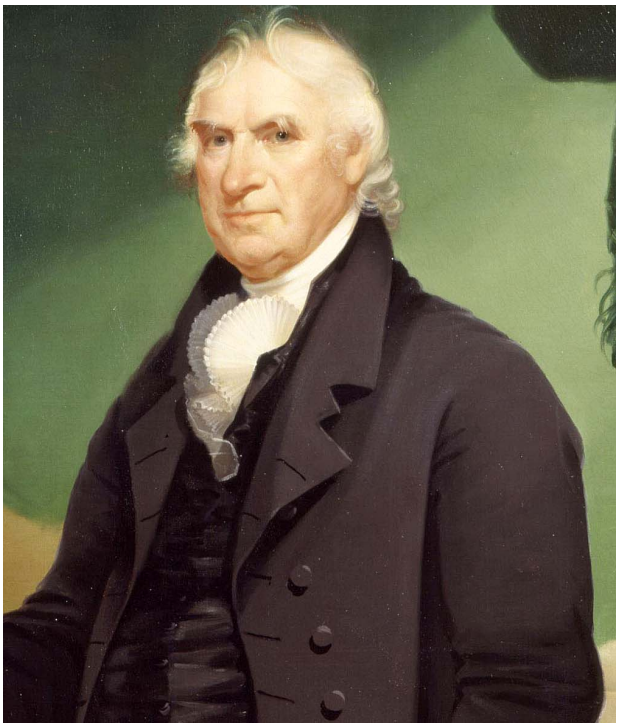
Thomas Machin (1744/5 – 1816) was born in England and apprenticed to a canal builder, James Brindley. Brindley and Machin co-engineered the Duke of Bridgewater's nine-mile canal between Manchester and Worsley, England. In 1756 James Brindley made steam engines to pump out mines. Machin's father sold his mine to Brindley so he could pay for his son's apprenticeship to Brindley.

In 1772 aged 28, they sent him to New Jersey to report on engineering a copper mine. After arriving in New York, he moved to Boston, where he became a Patriot, participating in the Boston Tea Party in 1773. It is said he laid out the fortification lines, fighting as an artilleryman at the Battle of Bunker Hill in 1775, where he received an arm wound. They commissioned him as a First Lieutenant in the New York artillery in January 1776 in Col. Henry Knox's regiment. Some say he also belonged to the Sons of Liberty.

An alternative version, for which there is documentary evidence, was that he enlisted in the British Army in February 1773, sailing to New York City in the Spring and transferring to Boston in August 1774. Machin fought for the British in the 23rd Regiment of Foot at the Battle of Bunker Hill.

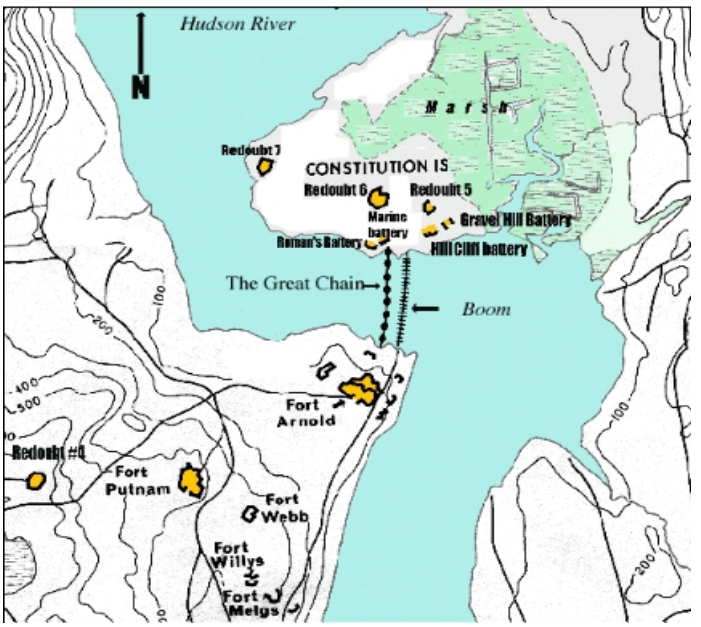
He then deserted to the Patriot side and drew plans of British fortifications for Washington's Aide-de–camp, John Turnbull. He became part of Washington's spy ring during the siege of Boston from 1775 to March 1776, when Washington mounted artillery to Dorchester heights, forcing the British to vacate Boston.

In July 1776 the army sent Machin to Fort Montgomery, on the Hudson River, as a Captain under Maj. Gen. (later Governor of New York and Vice President of the United States) George Clinton. Congress did not approve Machin's promotion until August 1780 but in January 1777, they promoted him to Brevet Captain. Clinton assigned him to place a chain across the Hudson River at Fort Montgomery preventing British access to Kingston, NY, 90 miles north of New York City, where the continental army stored their food and munitions. In October 1777, while fighting in Col. John Lamb's artillery regiment, the British breached the chain. British fire wounded Machin in the chest. He recuperated in George Clinton's house and became friendly with him.



George Clinton

In 1778 Clinton assigned him to engineer a larger 1,700-foot, 65-ton chain from West Point to Constitution Island, where the Hudson took an S-shaped course. Other authorities say the chain weighed 186 tons. Stirling Iron Works in Warwick, Orange County, New York, forged the huge links. Peter Townsend was master of the Sterling Forge, owned by William Alexander (Lord Sterling). Townsend wanted a homosexual relationship with Machin and for years after wrote him letters.



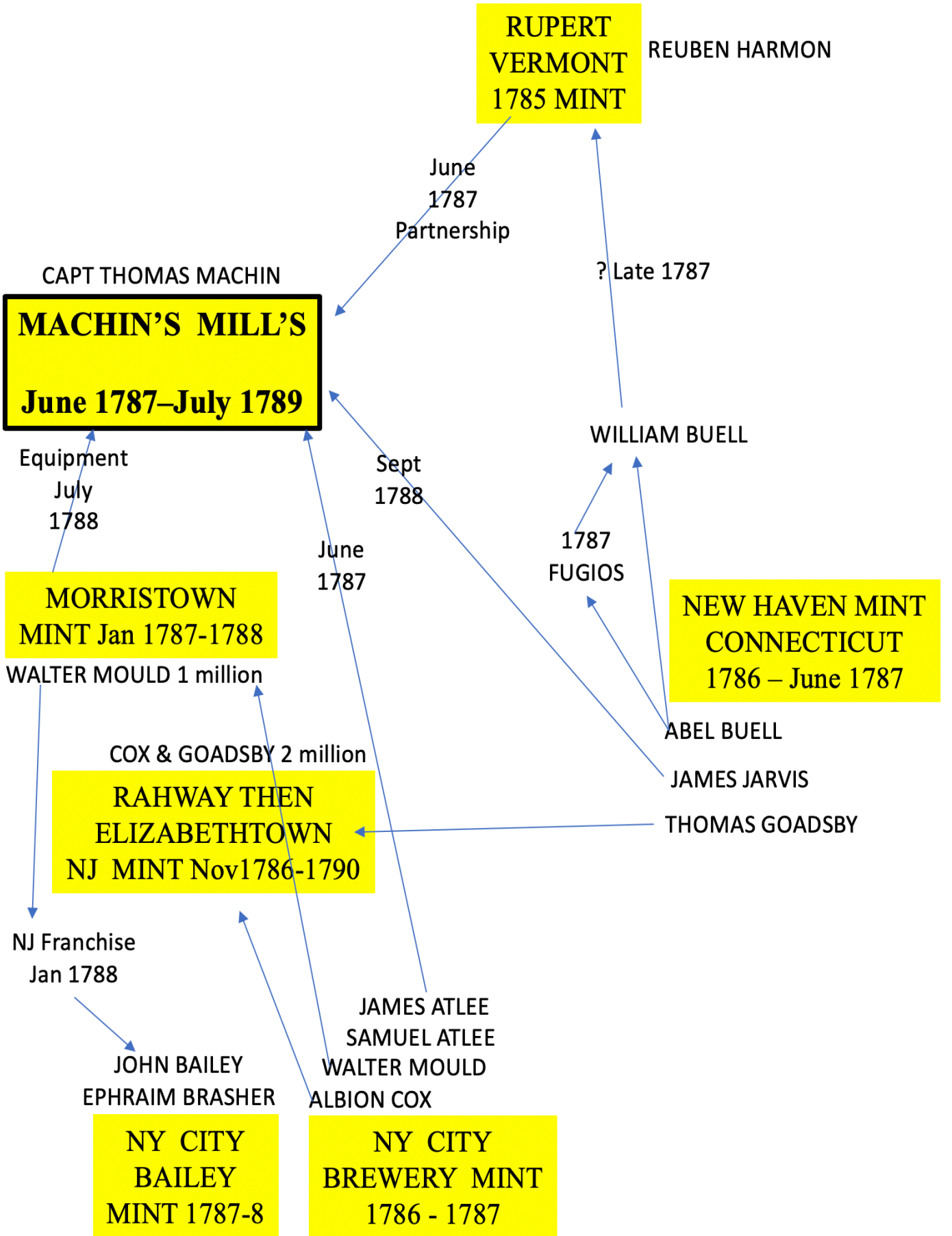
Location of Great Chain and boom.

They floated the chain links on logs to West Point, supporting the links with log rafts on the river. If British ships tried to breach the chains, canon overlooked the area which could bombard the ships. However, the British never tried to breach the chain, though they unsuccessfully attacked West Point in 1780. Continental troops hauled in the chain when ice formed on the river, to avoid damaging it. Machin would later coin an imitation British halfpenny dated 1778, which I call the Great Chain Commemorative!

In the Spring of 1779 Machin joined Col. Goosen van Shaik's expedition under Maj. Gen. John Sullivan and Brig. James Clinton (also called the Sullivan or Sullivan-Clinton expedition). This was against the Iroquois confederacy in upstate New York, who had supported the British. Many Iroquois fled. At Newton, New York, 3,200 Continental troops defeated 1,000 Iroquois. Continentals then burnt Onondaga villages, food and crops, forcing them north to British Canada. The British had insufficient food and shelter to support them. Unfortunately, many Iroquois froze and starved to death because of the severity of the 1779 winter.

In the summer of 1779 Clinton traveled to Genesee country. Machin built a temporary dam to raise the water level on Lake Otsego. The dam obstructed the outflow from Lake Otsego into the Susquehanna River in present day Cooperstown (see below). The dam raised water levels, and breaching it would enable Brig. Gen. James Clinton to ride the flood water down river to meet Gen Sullivan at Tioga shown on the map below.

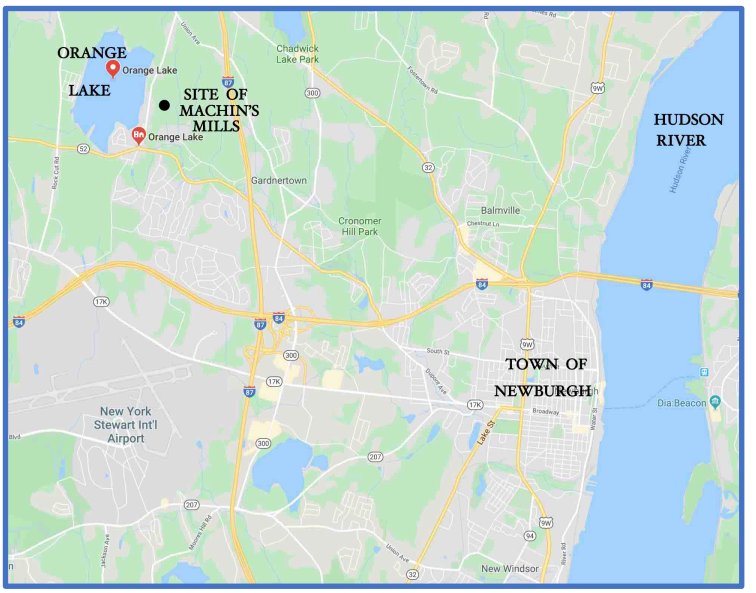
This allowed Brig. Clinton to bring 208 boats and supplies from Fort Plain and Canajoharie, on the Mohawk river via portage to meet Sullivan down the Susquehanna River at Tioga.



MOST ROADS LEAD TO MACHIN'S MILLS

In October 1781, Machin worked on siege works at Yorktown and sighted the first canon fired at the Siege of Yorktown. Robert Hartley wrote in a 1932 article in the St. Johnsville Enterprise that Machin fired on a British ship at Yorktown, hitting its ammunition magazine and destroying the ship.

Machin retired from Army service in 1783 and settled in New Grange, Ulster County New York (now Newburg). The next year he built a house, 220 yards east of the Orange Lake, later called the Mint House (see below). He built a mill on the lake and several other buildings referred to as Machin's Mills.



Site of Machin's Mills. Courtesy of Google maps

After networking with several minters, he persuaded them to sell out their equipment to him. He minted coins from after June 7th, 1787 to July 1789. Then the copper panic in New York State likely curtailed profits as coppers fell to about a quarter of their previous value.

Machin moved in 1790 or 1797 to Mohawk, Montgomery County, New York State (70 miles east of Syracuse), where he became a leading citizen. There he worked as a map maker and surveyor. He worked on planning a Cape Cod Canal in 1791 and 1803. The canal did not come to fruition until 1909. In 1813 Machin received an invalid pension of $120 a year.

His son (also Thomas), born in 1796, fought as a Captain during the War of 1812. He rose to Brigadier General in the New York Militia. Machin Sr. died in 1816. Some have characterized him as opportunistic and a person of dubious morals. But I take my hat off to him!

Machin was a founding father of masonry in Schoharie County, and the first master of the Schoharie Union Masonic Lodge. Maj. Gen. Knox founded the Society of the Cincinnati in Newburg, which included Continental Army or Navy officers who served three or more years. They excluded French officers below a certain rank and colonial militias. 2,150 of the original 5,500 eligible officers joined and membership continued through primogenital inheritance (first-born son). I have a son-in-law whose older brother is in the society. The Daughters of the Cincinnati are a parallel society. Their objectives include memorializing the ideals and actions of the Patriots of the American Revolution.

What follows are photographs of halfpence, the commonest circulating coins of New England: regal, Machin and Bungtown counterfeits, evasions, and cast counterfeits. After this are the three Machin's Mills Groups including one dated 1778. I like to think Machin himself chose that date because that was when he engineered the Great Chain across the Hudson River. Remember the head left represents George II, and the head right George III.

References

Anton, W., and Kesse, *The Forgotten Coins of the North American Colonies*. 1992. Krause Publications, Iola, Wisconsin
Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American Coins*. Whitman Publishing, Atlanta , GA. 2009
Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins*. Doubleday, NY. 1988
Crosby, S., *The Early Coins of America*. Boston 1875
Hickcox, J. *An Historical Account of US Coinage.* Albany, New York. 1858
Trudgen, G., *Samuel Atlee's New York City Brewery and Mint*. 2018. Pages 27-58. Journal of Early American Numismatics,
Vlack, R.A., *Early American Coins*. Johnson City. New York 1965
Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*. 72nd Edition. Whitman Publishing LLC Pelham, AL 35124
Schettino, C., Trudgen, G. *The Categorization of Counterfeit British and Irish 1/2d and ¼ d of George II and III.* Copperclem.com
https://coins.nd.edu/ColCoin/ColCoinIntros/NovaEbor.intro.html
By United States Military Academy Department of Geography - United States Military Academy Department of Geography, Public Domain, https://en.wikipedia.org/w/index.php?curid=17009987
https://en.wikipedia.org/wiki/Hudson_River_Chain
https://en.wikipedia.org/wiki/Thomas_Machin
https://www.bostonteapartyship.com/thomas-machin
http://www.bunkerhillrarecoin.com/?id=5
https://www.findagrave.com/memorial/43388272/thomas-machin
http://famousamericans.net/thomasmachin/
http://mohawkvalleyweb.com/index.php?id=33
By Henry MitchellRestoration by Godot13 - Mitchell, Henry (1876) The State Arms of the Union, Boston: L. Prang & Co., Public Domain, https://commons.wikimedia.org/w/index.php?curid=31907484
By Ezra Ames - https://www.nyhistory.org/web/crossroads/gallery/viewer/george_clinton_by_ames.html, Public Domain, https://commons.wikimedia.org/w/index.php?curid=18958037
By R.A. Nonenmacher - photographed by me, CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=837429

#419

British Regal Halfpenny 1771. S-3774; 28.5mm, 9.98 Grams EF

1846

Irish Regal Halfpenny 1696 William III. S-6598; 26mm, 6.26 Grams AVF

764

Birmingham Counterfeit Halfpenny 1775. Long Neck Family 1-A; 28mm, 7.83 Grams F

2118

English Counterfeit Halfpenny 1772 Aging George Family. 29mm, 8.48 Grams VF

2119

English or Irish Counterfeit Halfpenny 1741. 27mm, 6.9 Grams F

343

EVASION BRITISH HALFPENNY. ATKINS 379; 27MM, 7.36 GRAMS EF

913

PERSONALLY MADE SANDCAST COPY OF REGAL 1771 HALFPENNY EF

388

Machin's Mills Halfpenny. Group I (Mould-Atlee NYC 1786) Vlack 4-75A; 28mm, 7.63 Grams VF

390

Machin's Mills Halfpenny. Group II (Atlee & Bailey NYC 1787) Vlack 17-87A; 27mm, 7.64 Grams EF

421

MACHIN'S MILLS HALFPENNY. GROUP III (ATLEE NEWBURGH) VLACK 19-87C; 27.5MM, 7.68 GRAMS EF SCRATCHES

758

Machin's 1/2d. Group III (Atlee Newburgh) "Great Chain Commem." Vlack 11-78A; 27.5mm, 7.68 Grams F

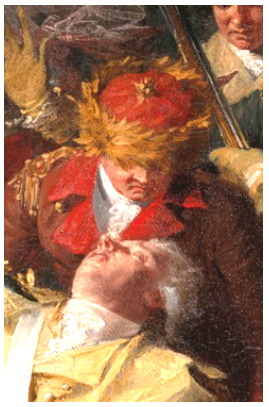
CHAPTER TWENTY-THREE
NEW JERSEY COPPERS

Like so many of the state copper stories, the story of New Jersey's state coppers is another of bewildering complexity. Perhaps the simplest way to explain it is with vignettes of the protagonists, though this will engender some repetition. The four main protagonists were:

- Matthias Ogden
- Walter Mould
- Albion Cox
- Thomas Goadsby

Matthias Ogden (1754–1791)
Matthias was a direct descendant of John Ogden who immigrated to Long Island in 1640 and moved to New Jersey in 1664. Matthias attended Princeton. In 1775 he and his childhood friend, Aaron Burr, volunteered for Benedict Arnold's march on Quebec. John Trumbull painted Ogden holding Maj. Gen. Montgomery as he died.

Death of General Montgomery 1775



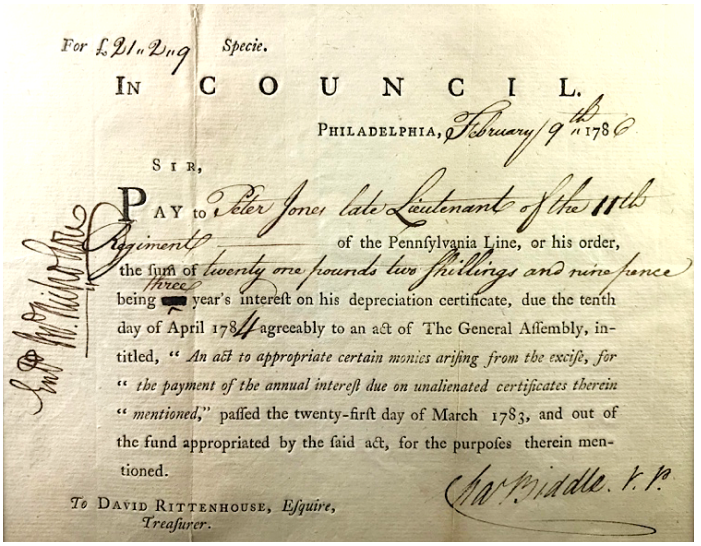
In 1776, aged 22, Matthias became a full colonel, fighting at Brandywine Creek and at Germantown. He over-wintered with Washington at Valley Forge. In 1779 he suffered court-marshal proceedings for various charges. The only charge that stuck was that he liked to play games of chance. He got off lightly.

In 1780 Elizabethtown loyalists (pro-British) captured Ogden and imprisoned him for four months until they released him in a prisoner exchange. Ogden was friendly with Marquis de la Fayette, who presented him with an elaborate sword in 1780.

In 1783 Ogden visited France to network with Lafayette and secure business relations with France. After presentation at the Court of Louis XVI, he returned to the young United States, commissioned to carry from France to Congress the news that they had signed the Treaty of Paris. Congress brevetted him to Brigadier General.

He returned to his home in Elizabethtown (present day Elizabeth) and opened a law office. Ogden also helped found the Society of the Cincinnati, to commemorate the service and sacrifice of Patriot officers, continued through primogenital (first-born male) membership.

Before the Revolutionary War, merchants prospered. After the War, the British excluded them from the British West Indies trade. Merchants could import little and pay even less. Many went bankrupt. Farmers were no better off. The US paid them for fighting with promissory notes. Few wanted these notes (see below). They often changed hands at a discount of over 70%. Without money many farmers went bankrupt too.


For £21 2 9 Specie.

IN COUNCIL.

PHILADELPHIA, February 9th 1786

SIR,

PAY to Peter Jones late Lieutenant of the 11th Regiment of the Pennsylvania Line, or his order, the sum of twenty one pounds two shillings and nine pence three being one year's interest on his depreciation certificate, due the tenth day of April 1784 agreeably to an act of The General Assembly, intitled, "An act to appropriate certain monies arising from the excise, for "the payment of the annual interest due on unalienated certificates therein "mentioned," passed the twenty-first day of March 1783, and out of the fund appropriated by the said act, for the purposes therein mentioned.

To DAVID RITTENHOUSE, Esquire, Treasurer.

Jno. Middle. V. P.

Promissory note for £21/2/9 to Peter Jones #2749

The solution at the time for bankruptcy was debtor's prison. This did not solve much. This was before America's enlightened bankruptcy laws, sometimes called the Nelson Act, which entered into force in 1898.

After the Revolution, the federal and state governments were heavily in debt. The states were strong, but the Confederation was weak. Shay's Rebellion started in Massachusetts, pitting disgruntled farmers against bureaucrats. This threatened to sink the states towards anarchy and helped propel the new Articles of Confederation of 1787.

Matthias' father, Robert (who had been Speaker of the New Jersey Assembly), died in 1787. Matthias inherited his tanning business and a stage-line company with its lucrative mail contract between New York City and Philadelphia. We do not know whether Matthias operated these businesses or had income from them before 1787.

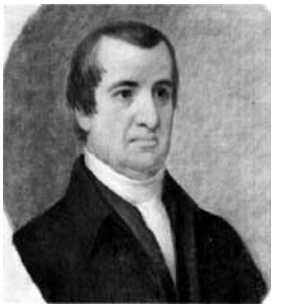
Matthias was close to his older brother Robert, who married Sarah Platt, then her sister Hannah after she died. Broom and Platt were prominent merchants in New Haven, associated with the New Haven Mint, which struck Connecticut coppers. The Mint's majority owner, James Jarvis, also married into the Broom family.

The world was a small place then. James Jarvis, Thomas Goadsby and Abel Buell were all involved in the New Haven Mint. Jarvis and Goadsby also helped finance the New York City Brewery Mint, run by James Atlee, Walter Mould and Albion Cox.

Matthias Ogden was thus very familiar with the New Haven Mint and had money to invest. In 1786 Ogden and Jarvis competed with proposals to produce Fugio coppers for the federal government. Jarvis won the franchise in April, because he bribed William Duer, head of the Federal Treasury Board. He promised him $10,000 but never paid the bribe! Business people were not always moral. Hey! What's new!

During the Confederation period, New Jersey had:

A Legislative Council with one member from each of 13 counties (Ogden at the time for Essex).
A General Assembly with three members from each of 13 counties. Daniel Marsh, Abraham Clark, and Jonathan Dayton (Douglas says Henry Garritse) were the three Essex county members).



Abraham Clark

Abraham Clark, was the signer of the Declaration of Independence, and a member of the Continental Congress. He fought for merchant and farmer causes, notably the lack of paper money and lack of credit during the post-war period.

Ogden proposed a New Jersey coinage bill on March 1st, 1786, which the General Assembly including Daniel Marsh voted against. The same month the Legislative Council also rejected a bill to print £100,000 in needed paper money.

Ogden seemed smitten by the coinage business. To get the coinage bill through, he sold his mail franchise to Assemblyman Daniel Marsh in exchange for a favorable vote on the New Jersey coinage franchise. Was this altruism? Or was it business?

Three recent English immigrants, Walter Mould, Thomas Goadsby and Albion Cox applied for the franchise. But a competitor, William Leddel (a local physician and High Sheriff of Morris County) offered the state an 11% royalty. But he lacked minting experience, so the Legislature rejected his application.

On May 22nd, 1786 the General Assembly passed a paper money bill. The next day they sent the coinage bill to a committee of Clark, Marsh and others, who this time voted in favor of it. On May 31st the Council passed the Bill and on June 1st, 1786, the Assembly passed it.

The Bill required the three coiners to make £10,000 of coppers at 15 to the shilling, i.e. 3 million coppers, over a two-year period. They had to pay the state 10%. The Legislature specified the copper's weight at 9.72 grams, rather high considering British regal coppers were only 9.2 to 10.8 grams. Montroville Dickeson commented most New Jersey coppers weighed between 8.0 to 10.1 grams.

The Supreme Court of New Jersey would decide the designs (the New Jersey Chief Justice was John Symmes – who later befriended Mould). Mould, Cox and Goadsby had to provide a £10,000 surety bond.

The partnership leased Assemblyman Marsh's mills in Rahway for £130 a year for seven years. Goadsby obligated himself for his third of the lease, but Ogden had to bond Mould and Cox to rent the mills. Why seven years? The franchise specified everything was to finish in two years! Presumably Ogden thought this was a good business, and after this contract ended, others would come along. Ogden also took out a mortgage to pay for the minting equipment.

They used two mills, one mill faced the Rahway River, the other was half a mile away, both in the town of Rahway about six miles southwest of Elizabethtown (see opposite). One mill may have produced planchets and the other coins.

Cox and Goadsby came up with their third of the required £10,000 state bond. But Mould did not come up with his third. Unable to proceed, the coiners petitioned the State to partition the franchise. Goadsby and Cox would mint two million coins and Mould one million. On November 22nd, 1786, the State granted the "partition petition", which specified that Mould had to produce his portion of the surety bond and start minting within 60 days.

We do not know whether Goadsby and Cox started coining before Mould paid his surety. But once partitioned, the franchise allowed Goadsby and Cox to coin legally on November 22nd.

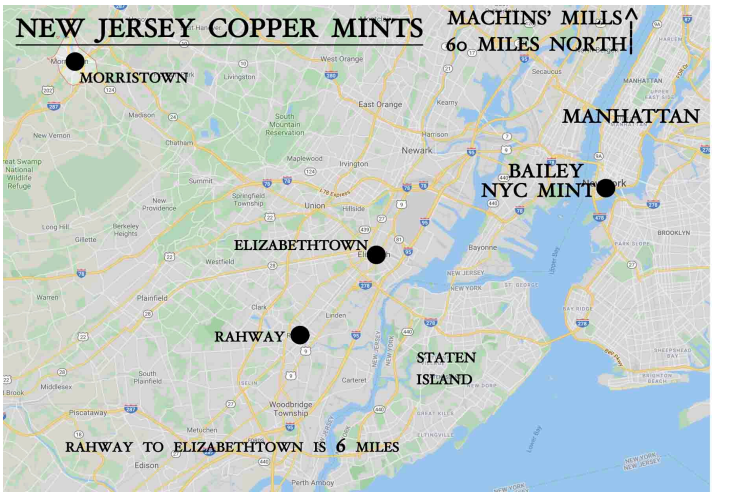
As Mould had to coin coppers by January 22nd, 1787, he likely got someone else to do it until he was ready.

On March 16th, 1787 Mould sued Cox for money owed, forcing Ogden to post a bond for Cox. Cox, either a grifter or total financial incompetent, kept on borrowing money from Goadsby. Over a one-year period, Goadsby lent him £2,140.

Goadsby, fearful that Cox's creditors may seize his business, severed his relationship with Cox. On November 6th, he got a writ to seize the partnership's equipment and copper stock.

They sentenced Cox to debtor's prison in December 1787. Authorities freed him in January 1788, perhaps because Ogden acted as his guarantor. But that is supposition.

Cox, and others, including Sheriff Leddel, then broke into the Rahway mint around February 1788 and stole the equipment and copper stock. Leddel took the equipment to Mould's operation at Solitude. Goadsby then sued Cox for the theft.



In March 1788 they delivered the equipment and copper to Ogden in Elizabethtown, presumably compensating him for his continued rent liability for the mill. That month Goadsby left the coining business and returned to New York City as a merchant. Other reports say he left for Vermont. This left Ogden with his equipment at the Elizabethtown Mint. Ogden likely employed Cox and/or Gilbert Ridell in the mint.

The new mint house was a shed in the back of a house on Water Street, Elizabethtown, known as the "Old Armstrong House". Numismatic author, Douglas Damon, said this was on Ogden's property. The Armstrong House is now 941–958 Elizabeth Ave., Elizabeth (Elizabethtown incorporated as the City of Elizabeth in 1855). Ogden minted most coppers on underweight planchets, especially Connecticut planchets, which increased their value from 45 to the shilling to 15 to the shilling.

The legal deadline to stop coining was November 1788. But they struck coins through the July 1789 Copper Panic until June 1790. The New Jersey Assembly then threatened an enquiry with increased penalties for coining underweight New Jersey coppers.

In June 1790 Goadsby employed Matthias' brother, Aaron, to sue Cox for his £2,140 loan. Cox attended the court trial. The Sheriff Caleb Camp sold off Cox's assets for £130 and 5 shillings. Shortly after Cox returned to England.

Ogden was a war hero, a prominent politician in New Jersey, a lawyer, and the driving force behind New Jersey coinage. But the business he chose grew troublesome and full of grifters. He succumbed to yellow fever in 1791 aged 36. Three years later his second wife Hannah sold Ogden's coining press to the first US Mint.

Walter Mould (1740–1789)

In 1742 English law made counterfeiting copper a misdemeanor. In 1771 they changed counterfeiting copper to a felony. Walter Mould took part in a ring of six people counterfeiting halfpence in the Bristol area in England. In 1776 the judge convicted and imprisoned him for eleven months at Castle Jail in Gloucester, England. His wife, Martha, also part of the ring, spent three months in jail. On release Martha was destitute, so returned with her children to London to live in a workhouse.

When they released Walter in 1777, he traveled to London and lived with Martha. He was a pupil of Wyon, who owned a mint in Birmingham, England.

Four years later he immigrated alone to America. He brought dies with him, including some of Wyon's. We do not know what happened to his family. At 43 he settled in Morristown, New Jersey, and married Lydia Mizell aged 23.

Later in 1783 he moved to New York City. There, John Bailey (who had a partnership and mint with Ephraim Brasher in New York City) backed him as an engraver and metal ware merchant.

The next year Mould engaged in business with James Jarvis, who would later own the New Haven Mint. In 1784 Mould visited England for Jarvis. In August 1785 Mould petitioned Congress for the Fugio coinage contract, as did Jarvis in November 1786. In November 1785 Thomas Eaves, using Aaron Burr as an attorney, sued Mould for a £200 debt. The case reached the New York Supreme Court in August 1786.

Silas Condict, a prominent farmer from Morris County, New Jersey, and delegate to the Continental Congress, suggested Mould apply for a franchise to mint coppers. Condict was Mould's neighbor and in New Jersey's Legislative Council.

But, after joining forces with Cox and Goadsby, Mould could not produce his third of the £10,000 surety bond to start coining. Goadsby and Cox then petitioned the state to partition the franchise, which enabled them to start coining legally. The State granted the partition on November 22nd, 1786. This left Mould with a franchise for one million coppers, which specified he start within 60 days, or risk losing the franchise.

Various authors give different reasons for the partition. John Hickcox said, "to secure to the State the full benefit of the former (June 1st, 1786 New Jersey Coinage) Act"—whatever that means! Others said that he was uncooperative in business. Mould claimed Goadsby and Cox owed him £187/1/8 and refused to contribute anything else to the partnership. Others pointed to Cox and Goadsby's discovery that Mould had a criminal record. These are all suppositions. The most likely supposition is that they could not coin money because Mould could not supply a surety bond.

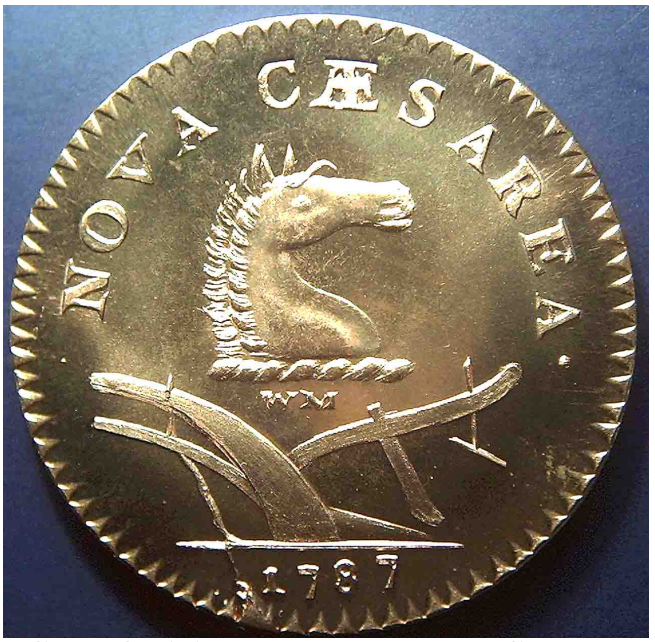
Mould persuaded Hathaway, Kinney and Halsey to provide surety for him just three days before he would have lost the franchise. Mould may have asked someone else to strike the coppers in the meantime. His friend James Jarvis (of the New Haven Mint) comes to mind, though New Jersey specified the coppers be struck in the state of New Jersey. Before Mould later absconded to Ohio in 1788, he transferred his Power of Attorney to his friend, James Jarvis.

William Liddell, the physician and High Sheriff of Morris County attracted Mould to Symmes property. Mould soon struck up a friendship with John Cleve Symmes, Chief Justice of the State of New Jersey, Ohio land speculator, and delegate to Continental Congress. Symmes had an 86-acre estate called "Solitude" two miles west of Morristown. Mould sublet 40 acres for himself and his mint. Symmes became Mould's landlord. Mould's Morristown Mint started in February 1787. The property also contained a copper mine.

New Jersey coppers with WM hidden by sprigs (see next page) were likely Mould's first coin.

Another unique copper had no sprigs hiding the initials WM. This first appeared in the Red Book in 1997, sold for a high six figure sum.

Maris 62-q "Hidden Initials" sprigs over WM #1029



Copy of William Mould New Jersey Copper #862

Mould used Dudley to sink dies, but seldom paid him. Dudley sued him for the money. Around December 1787 Mould, who always seemed short of cash, sold off his New Jersey franchise to John Bailey. Bailey then struck New Jersey coppers in his New York City Mint from January to April 1788.

Having sold his New Jersey franchise, Mould struck Connecticut coppers (two laughing heads, the horned bust, and MBR 1787) in his Morristown Mint.

Ogden paid Mould's portion of the Rahway Mint rent. So, when Mould sold his equipment to Machin in July 1788, Ogden went to court to stop Mould absconding (writ of ne exeat statum). Before Ogden could serve the papers, Mould and his family fled to Ohio. The alternative would have been debtor's prison. Ohio in colonial times referred to the Ohio River Valley, not the state (see above).

Ohio River Valley in Colonial Times

Mould's wife Lydia had grown very close to Symmes' wife. The Moulds and the Symmes traveled together in four-horse wagons to Maysville, in present day Kentucky. Walter turned poorly but opened a blacksmithing business in Lexington. He died in the early spring of 1789 aged 49. One wonders whether he may have caught tuberculosis in English jail.

Lydia and her two children then moved to live with the Symmes in North Bend in present-day Indiana. Ogden still pursued Mould's estate for non-payment of his portion of the Marsh lease, selling off all Lydia's farm animals. In 1791, Symmes evicted Lydia and her children. Lydia remarried twice and moved to Newport, in present-day Kentucky.

Mould's Morristown planchets were ~30mm, whereas Rahway used ~28mm planchets. I think the larger planchets look nicer. Mint owners commingled dies and planchets between Rahway, Morristown and Elizabethtown.

Albion Cox (? 1744–1795)

Albion's family business was smelting and metal working. The family owned Cox, Merle and Co., refiners and bankers in England. He worked in the smelting business but went bankrupt in 1770 (a sign of things to come). Eventually, he restarted business. His wife, Jemima, died in 1777 after only eight years of marriage, leaving Albion with a son, Robert, aged five.

In 1783 the Crown appointed Albion assayer to the Sheffield Assay Office in England. This was a lofty position. But he caught the emigration bug, sold his business, and sailed to New York City in October 1783. A month later the last British soldiers left the city. We do not know whether his 11-year-old son, Robert, accompanied him. Albion borrowed the huge sum of £11,500 from a William Cox, said to be his brother.

That so many loyalists were leaving suggested a golden opportunity to many European speculators, who rushed to immigrate to New York City. Cox set up shop in New York City as Albion Cox and Coat, Silversmiths. The next year he joined a prominent New York firm of silversmiths, *Voorhis, Coley and Bayley* (Brasher was also a partner of the firm at one time).

In 1786 he left to join Samuel and James Atlee at their Brewery Mint in New York City. The New Jersey minters, Mould and Goadsby, then approached him because of his background in assaying. By now Cox's finances were at a low ebb, having spent his way through much of his £11,500. In 1790 a laborer earned about £10 a year. To say Cox could not manage money is an understatement! He seemed to have had a blind spot for finance and developed high expectations for the mint.

Cox and Goadsby came up with their surety of one third of the £10,000 bond. As Mould could not come up with his share, the legislature granted a partition of the franchise in November 1786.

Cox and Goadsby started at the Rahway Mint in November 1786, though one cannot rule out illicit coinage between June and November. They used Benjamin Dudley, a die sinker to engrave dies. But he had to sue Cox and Goadsby for the money, just as he did with Mould.

On March 16th, 1787 Mould sued Cox for money owed, forcing Ogden to post a bond for Cox. Meanwhile Cox borrowed £2,140 from Goadsby. Goadsby realized Cox's creditors could seize the partnership's assets. So, on November 6th, 1787 he got a writ allowing him to seize all business assets and expelled Cox from the partnership.

They sentenced Cox to debtor's prison in December 1787. Authorities freed him in January 1788, possibly because Ogden acted as his guarantor, though this is conjecture.

After release from prison, Cox and others broke into the Rahway mint around February 1788 stealing the equipment and copper stock. Cox may have felt the equipment was part of the partnership, and that he should by right have access to it. Goadsby may have felt taking over the equipment canceled some of Cox's debts to him, and he sued Cox for the theft.

But Ogden had paid for the equipment in the first place. In March 1788 they delivered the equipment and copper to Ogden in Elizabethtown, perhaps in return for his liability of continued rent for the mill. This left Ogden, the investor, with his Elizabethtown Mint. He likely then employed Cox to run it.

Cox lived in Elizabethtown till 1790. Goadsby then used Matthias Ogden's younger brother, Aaron, to sue Cox for the £2,140 he owed Goadsby. Cox attended the court trial. The Sheriff, Caleb Camp, sold off Cox's assets for £130 and 5 shillings. Soon after, Cox moved back to England. There he resumed his job as a refiner on Little Britain Street, London. Cox may have left his family in New Jersey (CNL page 779).

Fast forward to when the US Mint began. Thomas Pinkney, US Ambassador to England, asked Cox, Merle & Co. for a recommendation for a good assayer. They referred him to Albion Cox. Pickney interviewed him in London and signed an agreement on March 8th, 1793, for him to return to US as the first Mint Assayer for three years.

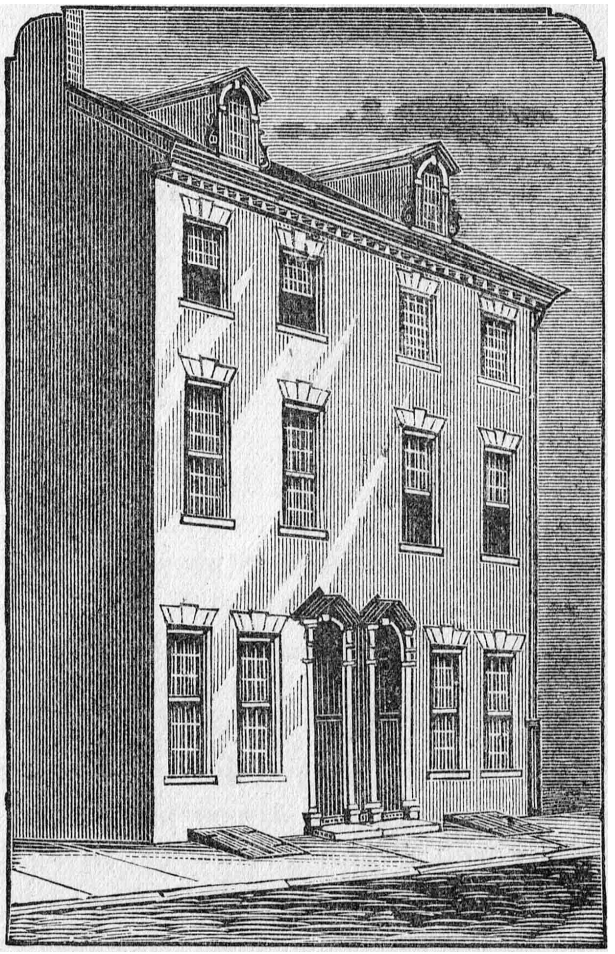
Pickney recommended him to Secretary Thomas Jefferson. Jefferson accepted this as long as he placed the required surety bond of $10,000, as specified in the 1792 Mint and Coinage Act.

Cox returned to US on board the ship *Pigon*. He arrived before May 7th, 1793, but they paid his salary from February 28th, 1793. He made $1,500 a year.

A sticking point was his surety bond. Cox could not afford $10,000. Neither could Chief Coiner Henry Voigt. So, throughout 1793 the US Mint had no assayer. On March 3rd, 1794 Washington signed into law Congress's "Alteration of the Mint Act", which reduced the required bond to $1,000. Charles Gilchrist, a Philadelphia merchant, posted Cox's surety bond.

Cox started work on April 4th, 1794, as the first assayer for the new mint. All these details of the surety bond may sound arcane, but numismatists will recall that the US Mint only produced copper coins, not silver or gold coins in 1793. This was the reason. The first silver coins were half dimes, half dollars and dollars in 1794. Circulating half pistareens (worth 10 cents), and 2 reales pieces (worth 25 cents) were sufficient for commerce until they started minting dimes and quarters in 1796.

The first silver receipt to the US Mint was $80,715.73½ worth of French silver coins on July 18th, 1794, to assay and mint into US coin. The first deposit of gold was on February 12th, 1794 of $2,276.72 of gold ingot.



First Mint of US, from Evans History of US Mint

On Friday 27th of November 1795, Cox entertained several prominent guests to dinner at his handsome mansion on Green Hill in Philadelphia. He felt indisposed and excused himself, figuring he might recover soon to return to the dinner table. After a prolonged absence, the guests searched the house to find him alone with a bad stroke, breathing his last. A few days later the Mint asked his second wife, Maria, to return the assayer room key.
When Cox died, Elias Boudinot, Mint Director wrote to Washington, "Until the office is replaced, the business at the Mint must be confined to striking cents only".

Albion's only son, Robert, followed in his father's footsteps as a goldsmith.

Thomas Goadsby
Thomas immigrated to New York City in May 1783. The American Revolution finished in 1781, but the last British soldiers evacuated New York City on 25th November 1783. Like Cox, he was seduced by reports that New York City was a golden opportunity to immigrate to when all the loyalists left.

Goadsby set up as a merchant selling fabrics and dry goods. Kirkman and Holmes manufactured the fabrics in London. But after the English evacuated the city, there was a post-war recession, and business was poor. Goadsby noted that cash was scarce. Prices fell and many New York City merchants had too much inventory and failed.

Both Goadsby and Cox were of sufficient means that they both became charter shareholders of Alexander Hamilton's Bank of New York.

The New York Assembly arrested Goadsby in March 1785 for defamatory speech. They called Albion Cox both as a witness for and against Goadsby, who only paid a small fine.

The Rahway Mint comprised Goadsby as financier and partner; Cox as business manager; John Harper as mint foreman; William Dudley as blacksmith; Gilbert Rindell, Habilton Robinson and Henry Widdegan (or Widdoner) as laborers; and Thomas Abney as an apprentice or laborer. Goadsby was a businessman and investor, not an artisan like Cox and Mould. But after the Cox and Goadsby partnership minted coins, Goadsby lent Cox £2,140. Goadsby soon realized he could lose his whole investment if any creditors came after the foolhardy Cox.

So, on November 6th, 1787 he got a writ allowing him to seize all Rahway Mint assets and expelled Cox from the partnership.

The next month they sent Cox to debtor's prison. Soon after his release, Cox stole the Rahway Mint assets. Cox perhaps felt the equipment was part of the partnership, and that he

should by right have access to it. But Goadsby may have felt taking over the equipment canceled some of Cox's debts to him, and he sued Cox for the theft.

The equipment and copper landed up with Ogden. Goadsby left town in March 1788 to resume life as a New York City merchant. Goadsby was a businessman, not an artisan.

John Bailey
John Bailey operated a large cutlery business in New York City. When the British Army occupied the city during the American Revolution in August 1776, Bailey, a Patriot, fled until they left in November 1783 when he returned. There he met and backed Walter Mould.

Bailey wrote to Washington in April 1790, suggesting himself rather than Matthew Boulton to coin money for the United States.

He worked with Ephraim Brasher and may have shared a mint which they likely started late 1786 in New York City.

Bailey and Brasher petitioned the State of New York for a copper franchise in February 1787, using Nova Eborac and Excelsior coppers as samples. Bailey struck the Connecticut Muttonhead and Group II Atlee halfpence also in 1787 (see chapters four and five).

In 1788 Bailey struck the running fox New Jersey coppers (five varieties) after Mould sold him his New Jersey franchise at the end of 1787. His mint was on Dock Ward at 21 Little Dock St., New York City.

History of New Jersey copper collecting
Siboni et al. (see references) talk about major New Jersey copper collections as having 80 or more varieties. There are 144 varieties in total. Siboni lists four provenance chains:

- Mickley
- Dickeson
- Old School Dealers
- Modern Era of Collecting Pool

1. Joseph Mickley (1799–1878)
Mickley started collecting when he searched for a 1799 large cent — the year of his birth. Despite thefts he sold his collection of over 50 New Jersey varieties to Bushnell, a New York City attorney. Bushnell, wrote *Numismatic Notes*, which Crosby often referenced. I have never seen these Notes relating to colonials. If they ever appeared, they would be a major link in colonial numismatic history between Dickeson in 1859 and Crosby in 1875. Bushnell's collection sold to Lorin Parmelee, a Boston bean baker, for $8,000. Parmelee gave the collection to his nephews, the Chapman Brothers, to auction. The collection included 97 New Jersey varieties, selling in 1890.

2. Montroville Dickeson
Dickeson collected colonials at the same time, and sold his 84-variety collection to Dr. Maris. After Crosby published his famous fascicles in 1875, colonial coin collecting became popular. This lasted through the 1920s. Bushnell, Parmelee and T. Harrison Garrett held the three main collections.

In 1885 Maris offered T. Harrison Garrett his New Jersey collection for $1,000. Garrett refused, but bought it the next year for $551 from auctioneer Stan Henkels. Garrett died in 1888 and his son Robert inherited his collection, which later passed to his brother John Work Garrett, a passionate numismatist.

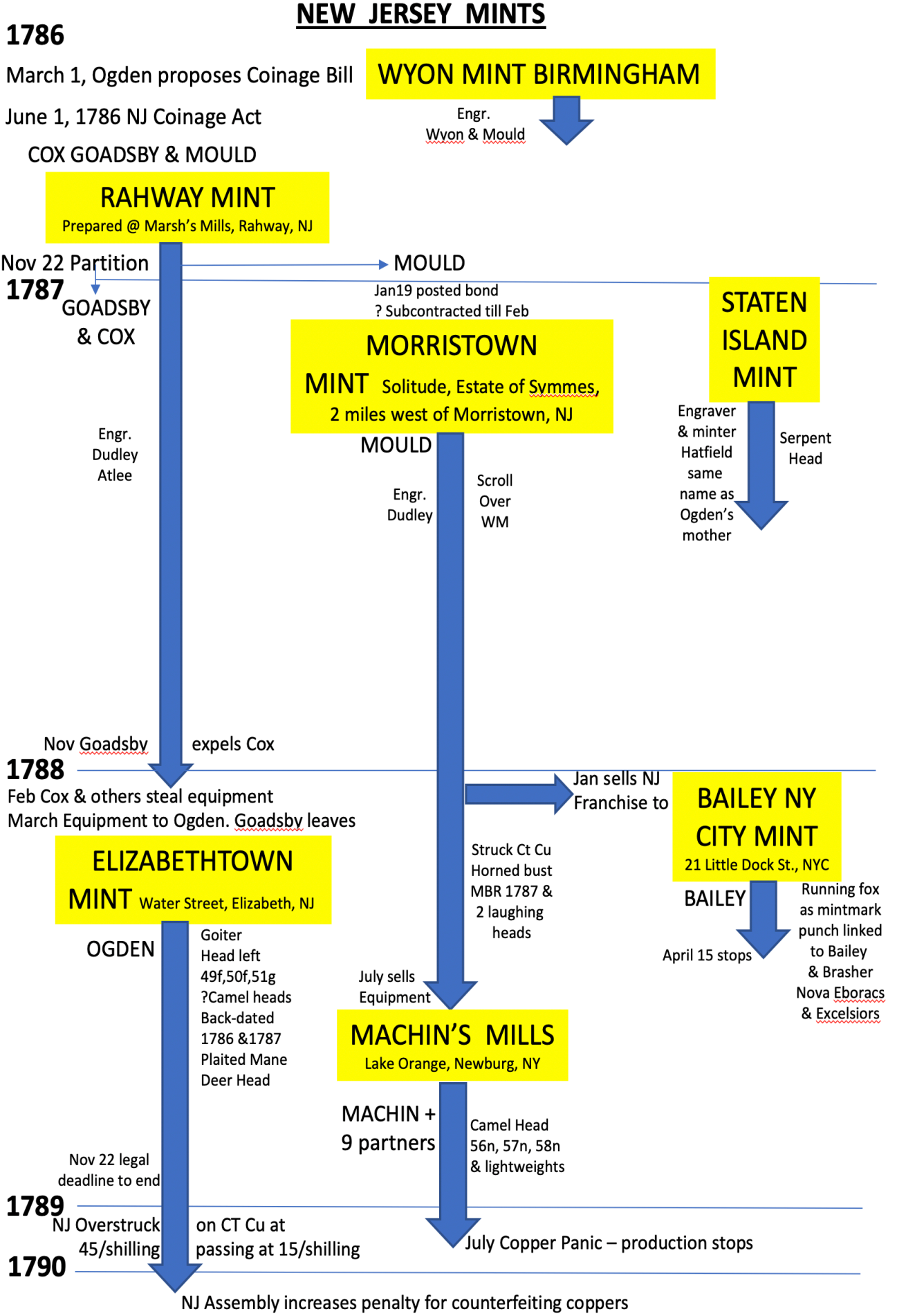
John bought Col. John Ellsworth's collection for $50,000 in 1923, and later parts of Waldo Newcomer's collection. When John died in 1941, the collection passed to his wife. She donated it (including 114 New Jersey varieties) to John's Hopkins University, who auctioned the collection with Bowers and Ruddy in 1979.

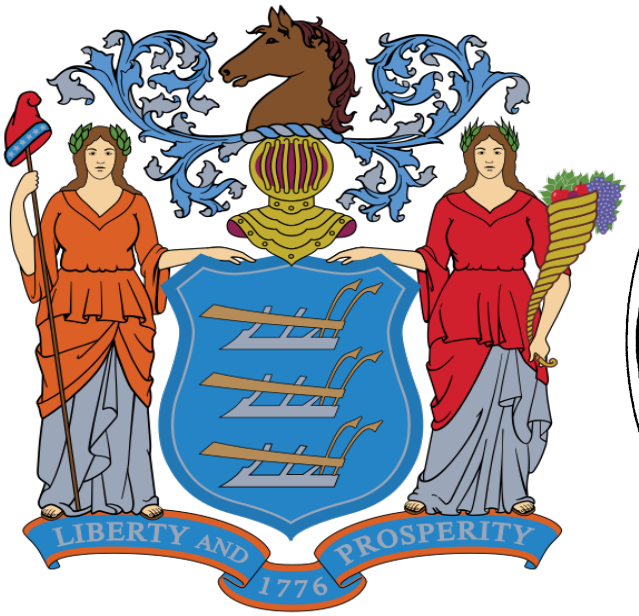
3. Old School Dealers 1950s to 1970s
B. Max Mehl, Wayte Raymond, Burdette Johnson, the Stack family, and the New Netherlands Coin Company handled colonials for the next generation. Eric Newman, the Norwebs, and FCC Boyd were big buyers. John Ford bought Boyd's collection for a song by duping his widow. It included 121 New Jersey varieties.

4. Modern Era of New Jerseys
The Garrett (1979), Norweb (1987–1988), and Roper (1983–1984) sales established the modern era. The Colonial News Letter (CNL) started in 1960 with around a dozen collectors. By 1990, over 100 subscribed. In 2018 CNL changed to the Journal of Early American Numismatics (JEAN). In 1993 the Colonial Coin Collectors club started. By 2013 they had over 400 members. They also publish the C4 Newsletter.

The diagram on the next page summarizes when and where the mints were and how they were interrelated. It also lists engravers, owners, and some coins they minted.

NEW JERSEY MINTS





New Jersey State Seal, parts used for obverse

Shield of Great Seal of US, used for reverse

The Coins

Montroville Dickeson in 1859 classified New Jersey coppers extensively. He called the shield side the obverse and classified new Jersey coppers by their reverse (the horse head!). He listed:

- 12 types and 30 varieties of 1786 coppers
- 30 types and 70 varieties of 1787 coppers
- 5 types and 10 varieties of 1788 coppers

He gave useful descriptions in his table including:

- Right or left facing horse
- Degrees of rarity
- Plow handles ending square or round
- Plow handles ending long, short, or irregular length
- Plow beam straight, straight with a curved end, curved at each end
- With or without coulter
- With or without singletree (only left facing plows omit the singletree)
- Leaves below the horse's head
- Nova Caesarea punctuation in 1788 coppers

He wrote notes on every type. We think today that we have superior research with a sophistication about types. But 160 years ago, Dickeson was sophisticated! Nevertheless, many of his varieties were die breaks and die states, today not considered distinct varieties. He was the first to nickname varieties like small head, PLURIBS, sleigh runner, etc.

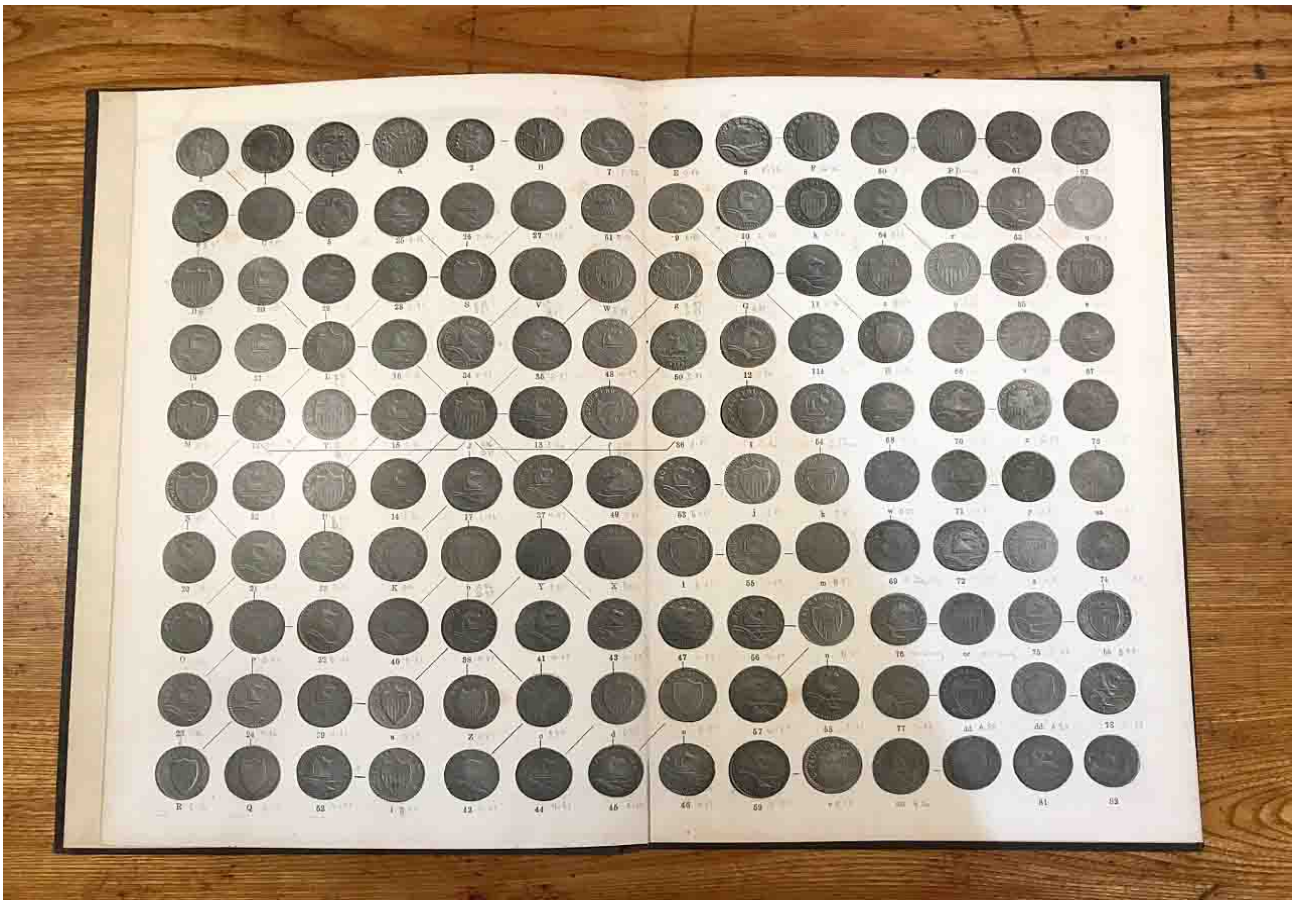
Crosby in 1875 listed (this time labeling the horse's head as the obverse):

- 1786 8 obverse types 17 varieties
- 1787 11 obverse types 36 varieties
- 1788 5 obverse types 9 varieties

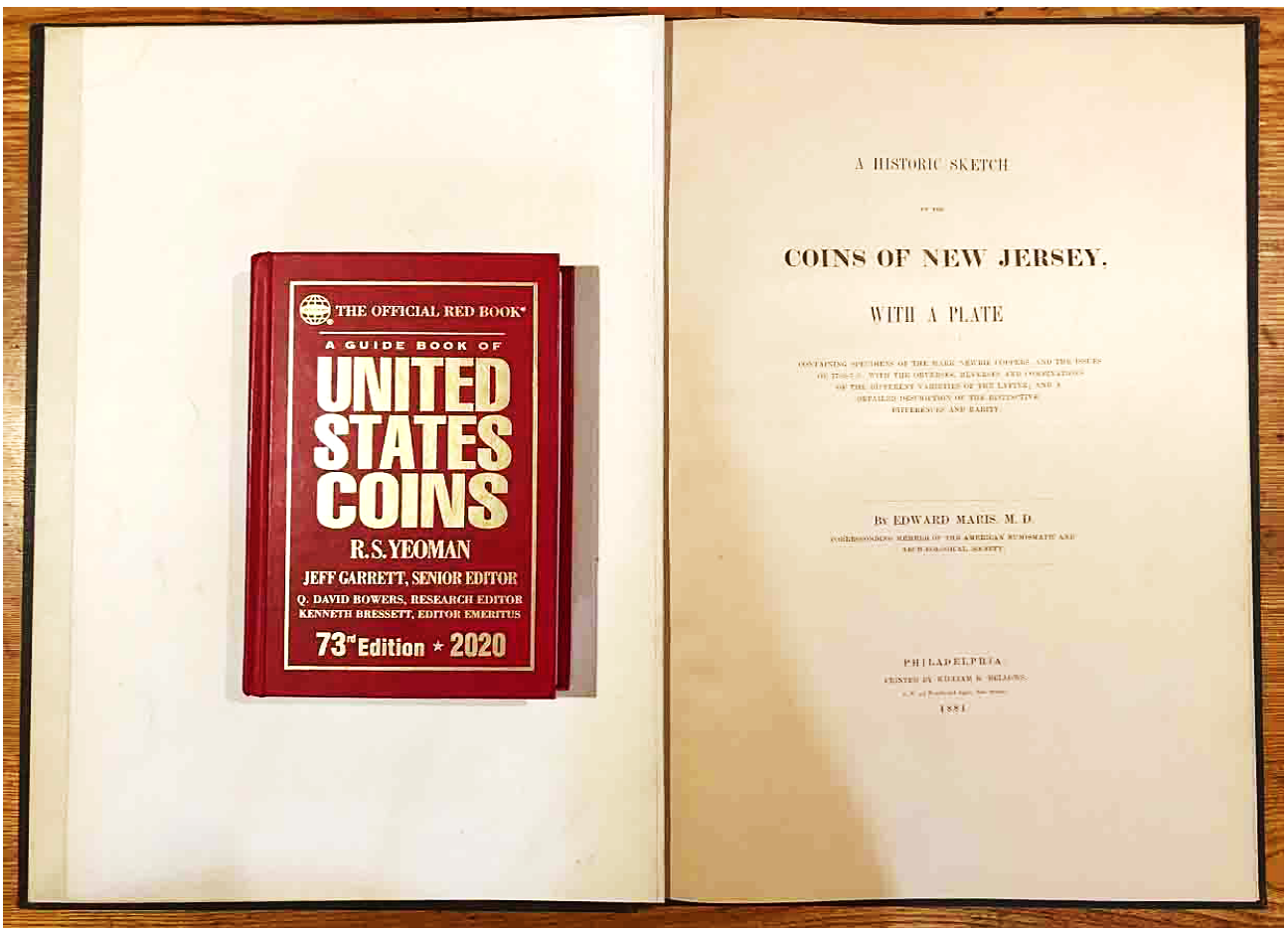
Coiners overstruck many New Jerseys on Irish and British counterfeits, Connecticuts, Vermonts, and New York coppers. They took the horse's head and plow from the New Jersey seal (above). This was designed by the early numismatist, Pierre Simitiere (1737–1784).

Dr. Edward Maris (1832–1900) was a physician and a Quaker. His interest in numismatics started when the US Mint replaced large US cents with small cents in 1857, which drove him to collect large cents. In 1866 Maris sold off his federal US coins and focused on ancient and foreign coins, US colonial coins, paper and medals. Ten years later he bought Dickeson's New Jersey collection of 84 coins.

In 1881 he published, *A Historic Sketch of the Coins of New Jersey With a Plate*. He followed the die linkage plate by 17 pages of notes describing 120 die combinations, including four counterfeits and two Mark Newbies. Maris' New Jersey copper collection sold in 1886 to T. Harrison Garrett, descended from the owners of the Baltimore and Ohio Railroad.



Die Linkage Plate of Maris' *A Historic Sketch of the Coins of New Jersey*, measuring 21" by 16"!



Maris' Elephant Folio book, Red Book to show size.

Maris used 1 to 84 for obverses, and A to Z, then a to z, then aa to pp for reverses. Numismatists have used his alphanumeric system ever since.

He distributed only 115–120 originals of his elephant folio books, which today sell for over $1,000. Mine measures 16½ by 11¼ inches.

In 2013, the ANS published the modern masterwork entitled, *New Jersey State Coppers*, by Roger Siboni, John Howes, and A. Buell Ish. Fortunately, they included collecting varieties by nicknames like goiter head, Serpent Head and Protruding Tongue, instead of 37-J, 54-K and 16-L. Could you imagine antique auto collectors talking about their 37-J, 54-K or 16-L, instead of their Bugatti Royale, Gull-wing Mercedes, or Classic Chevy Corvette. Coins for some numismatists are like having many children. You learn their appearance and their names. But I could never remember alphanumeric names for 100 different children!

Some numismatists remember these alphanumeric varieties. Not me!

I delved more into New Jersey coppers, because I found the devices and differences more appealing. New Jersey coppers to me are more pleasing than other state coppers.

We do not know how coiners distributed their coins. But if the State legalized them, perhaps someone exchanged them with major merchants for change, or employers for pay. State officials may also have used them to pay expenses.

New Jersey authorized three million coppers. British mints at the time (i.e. single screw presses) struck only 221–667 coins a day. Figuring 12-hour days this is 18 to 56 coins an hour. Though Machin claimed he could strike 60 an hour. One wonders whether Machin was bluffing or whether he had some clever mechanical advantage.

The survival rate of federal large cents is around 3%. New Jersey coppers survival rate is under 1%. William Nipper, numismatic author, calculated New Jersey survival rates at 17,928 to 51,175. Siboni et al. figure around 25,000 survive. Assuming colonial minters made three million coppers, this represents a survival rate of 0.8%.

New Jersey coppers are not simply alphanumeric Maris numbers. Collectors also consider die states, color, surfaces, grade, under-types, provenance (including inked Maris numbers) and condition census. Some like to collect "whatsits" i.e. retooled New Jersey coppers often only on one side, and often done over 100 years ago.

Before I collect anything, I like to research the varieties, decide what is collectable, and create a spreadsheet. The next three pages show those spreadsheets.

NEW JESEY COPPERS 1786-1788 MARIS TYPES

M=Morristown	PLURIBS=p
U=Unknown	PLURIBUS/S=m
R=Rahway	PLUKIBUS=cc,b
E=Elizabethtown	PLURIRUS=l
B=Bailey	RunFoxAfter=cc
	RunFoxbefore=dd,bb

Delisted

Means got or want

Means this is a recognized nickname

Means only 1-4 known thus realistically uncollectable

WANT LIST

11-H Cuneiform Shield R6-. VG $1,500, F $2,750, VF $8,250
25-S Eye nearly in neck R5+ VG $185, F $300, VF $1,000 EF $5,000
35-J 1887/1787 Overdate R6- VG $2,000, VF $3,500, EF $20,000
40-b Lama head R5+ VG $600, F $1,800, VF $4,000, EF $10,000
41-c Googly Eye R5+ VG $700, F $2,000, VF $4,500, EF $ 12,000
73aa Plaited Mane R4 VG $220, F $300, VF $900, EF $2,000 AU $4,000

1786 NEW JERSEY COPPERS (60 VARIETIES OF WHICH 20 4 OR LESS KNOWN) Chief=top point on shield. Azure = horizontal part of shield Scroll is line under horse's neck. Pales = vertical lines on shield, Hexagram = six pointed star, Pentacle = 5 pointed star

known is intermediate between Siboni and Whitman. R value is Siboni's

Acc#	Got	Variety#	Composite #known	Siboni R	Mint	Nickname	Obv Description	Rev	Whitman Number	Obv Details	Horse mm Width x Ht	Rev Details	Shield mm Width x Ht
651	15	1 A	76 - 200	?4		St Patrick Halfpence							
353	40	2 B	201 - 500	?3		St Patrick Farthing							
		3 C	20 - 30	6	M	Immunis Columbia				Immunis Columbia		Wide "Pattern"Shield pales of 5 and 6 stripes Strng double outline. 4 hexagrams	
857	40	4 C	3	8	?M	Washington		GOT ELECTRO		Washington bust right GEN WASHINGTON.		Wide "Pattern"Shield pales of 5 and 6 stripes Strng double outline. 4 hexagrams	
		4 1/2 pp	1	9		NON VI VIRTUTE				Bust right (NON) Vi VIRTUTE VICI ? Date denticulated		Medium shield Chief point to L of B ? 4 hexagrams	
		5 C	2	8		Eagle with stars	Pattern shield=pales of 5 or 6			Eagle+shield breast right E PLURIBUS UNUM		Wide "Pattern"Shield pales of 5 and 6 stripes Strng double outline. 4 hexagrams	
		7 C	1	9		Date Under Plow Beam	Pattern shield=pales of 5 or 6		4700	1 known date under plowbeam invisible		Wide "Pattern"Shield pales of 5 and 6 stripes Strng double outline. 4 hexagrams	
		7 E	5 - 8	7+	M	Date Under Plow Beam	6 pales of 5		4710	Small shaggy head,,6 nodule scroll 1786 slants down		Wide shield 6 pales of 5 lines 4 hexagrams	
		8 F	3 - 4	8		Date Under Plow Beam	6 pales of 5		4720	Smaller shaggy head, 6 nodule scroll 1786 slants up .afterA		Large wide shield 6 pales of 5 lines 4 hexagrams	
		8 1/2 C	3 - 4	8		Coulterless	Pointed plow handles		4730	small head leans back, Coulterless small 17866-7 nodule scroll		Wide "Pattern"Shield pales of 5 and 6 stripes Strng double outline. 4 hexagrams	
		9 G	7 - 8	7	U	Shaggy dog	Coulterless	wide shield	4735	large shaggy head coulterless, scroll only		large shield, Chief to L of B, 4 hexagrams, rounded denticles	
		10 G	16	6+	U	small shaggy head	Coulterless	narrow shield	4740	Small shaggy head, thin neck, vertical singletree, Hi.After A		large shield, Chief to L of B, 4 hexagrams, rounded denticles	
		10 h	5 - 8	7	?M	small shaggy head	Coulterless	narrow shield	4745	Small shaggy head, thin neck, vertical singletree, Hi.After A		small narrow, 4 hexagrams, rounded denticles	
		10 gg	4	7+	?M	small shaggy head	Coulterless	medium shield	4750	Small shaggy head, thin neck, vertical singletree, Hi.After A		medium, 6 pales of 4 lines, 4 hexagrams rounded denticles	
		10 oo	1	9		small shaggy head	Coulterless	medium shield	4760	Small shaggy head, thin neck, vertical singletree, Hi.After A		medium, 4 hexagrams, rounded denticles, chief to B center	
		10 1/2 C	1	9		Fur Head	Coulterless	field=pales of 5 or 6	4765	Shaggy, thicker snout, coulterless, .AfterA, small 1786		Wide "Pattern"Shield pales of 5 and 6 stripes Strng double outline. 4 hexagrams	
		11 G	1	9			Coulterless	wide shield	4770	Shaggy head, coulterless, scroll joins horse, 1786 sml spaced		large shield, Chief to L of B, 4 hexagrams, rounded denticles	
want		11 H	21 - 30	6-	?R	Coulterless	Cuneiform Shield		4775	Shaggy head, coulterless, scroll joins horse, 1786 sml spaced		Tall narrow shield, 6 pales of 4 lines, 4 hexagrams	
		11 hh	1	9	U		Coulterless	uneven large dentic	4780	Shaggy head, coulterless, scroll joins horse, 1786 sml spaced		Tall Narrow shield, 4 hexagrams, uneven denticles	
		11 1/2 G	12	7-	U		Coulterless	wide shield	4785	Shaggy head, coulterless, scroll joins horse, 1786 sml spaced		large shield, Chief to L of B, 4 hexagrams, rounded denticles	
1367,2933	20	12 G	31 - 75	4	U	Shaggy Man	ears under AE	wide shield	4790	Lge head w/ shaggy mane, coulterless, 1786 small		large shield, Chief to L of B, 4 hexagrams, rounded denticles	
		12 I	abt 30	5	U	Shaggy Man	earsunder AE	narrow shield	4795	Lge head w/ shaggy mane, coulterless, 1786 small		Tall, narrow shield, pales of 4 lines	
		13 J	13 - 30	6	R	straight beam	large head	Square M	4800	Lge head muzzle up,N almost touches plow hndle, 6 nodules, Hi 1&6		Medium shield, chief L of U. /spur R of M in UNUM, 6 pales of 3	
1281,1725	25,40	14 J	over 1250	1	R	Stegosaurus head		large shield Sq M	4810	Small head with mane spikes 1786		Medium shield, chief L of U. /spur R of M in UNUM, 6 pales of 3	
1596	12	15 J	501 - 1250	4	R	straight beam	Leaning Head	large shield Sq M	4815	Head arches leaning back to L, 6 nodule scroll., straight plow beam, 6 leans R		Medium shield, chief L of U. /spur R of M in UNUM, 6 pales of 3	
1282	20	15 L	201 - 500	4	R	straight beam	Leaning Head	large shield	4820	Head arches leaning back to L, 6 nodule scroll., straight plow beam, 6 leans R		Medium outlined shield , chief between B & U. 4 hexagrams	
1452	30	15 T	76 - 200	3	R	straight beam	Leaning Head	large shield Sq M	4825	Head arches leaning back to L, 6 nodule scroll., straight plow beam, 6 leans R		Medium outlined shield, chief closer to B than U, 6 pales of 3	
2121	20	15 U	13 - 30	5+	R	straight beam6leans	Leaning Head	large shield	4830	Head arches leaning back to L, 6 nodule scroll., straight plow beam, 6 leans R		Medium outlined shield chief to L of U, L shield point close to L of R	
		16 J	21 - 30	6-	R	Protruding Tongue absent as no die crack yet			4835	Lge head, scroll begins left of horse, straight beam,		Medium shield, chief L of U. /spur R of M in UNUM, 6 pales of 3	
227	20	16 L	501-1250	2	R	Protruding Tongue		med shield	4840	Lge head, scroll begins left of horse, straight beam,tongue out		Medium shield , chief between B & U. 4 hexagrams	
		16 S	1	9		Protruding Tongue			4845	Lge head, scroll begins left of horse, straight beam,tongue out		Left chief point highest, 6 pales of 3 lines, triangle back top of R	
		16 d	4 - 12	7+		Protruding Tongue			4850	Lge head, scroll begins left of horse, straight beam,tongue out		Top middle chief almost touches left side of U, 4 hexagrams	
		17 J	30-60	4	R	sml plow knobs	Siboni 21-30, Whitman 65-125		4860	tall upright horse, plow knobs, small date, poor scroll definition,		Medium shield, chief L of U. /spur R of M in UNUM, 6 pales of 3	
1283	12	17 K	201 - 500	3	R or E	sml plow knobs	Small date	Straight beam	4865	tall upright horse, plow knobs, small date, poor scroll definition,		small wedge shaped triangular shield, heavily beveeled border 4 hexagrams	
1468	20	17 b	201 - 500	3		PLUKIBUS Rev	Small date	StraightBeamPLUK	4870	tall upright horse, plow knobs, small date, poor scroll definition,		very small shield, heavily beveled, 6 pales of 4 lines,4 pentacles, PLUKIBUS	
		17 b	201 - 500	3		PLUKIBUS Rev	Small date	StraightBeamPLUK	4870	Small Planchet Late Die State Above is Large Planchet Early Die State		Small Planchet Late Die State Above is Large Planchet Early Die State	
2125	30	18 J	31 - 75	5+	R	Bridle	Head too far right	Square M	4875	horse off center to right, 1785. Bridle:D/S1=none, D/S2= partial,D/S3=full		Medium shield, chief L of U. /spur R of M in UNUM, 6 pales of 3	
		18 L	2	8		Bridle	Head too far right		4880	horse off center to right, 1785. Bridle:D/S1=none, D/S2= partial,D/S3=full		Medium shield , chief between B & U. 4 hexagrams	
502	40	18 M	501 - 1,000	3	R	Bridle	Siboni 201-500, Whitman >1,250		4890	horse off center to right, 1785. Bridle:D/S1=none, D/S2= partial,D/S3=full		Very wide shield, 6 pales of 4 lines, engraver's scratch in azure	
		18 N	31 - 50	5+	R	Bridle	Head too far right	Wide Shield	4895	horse off center to right, 1785. Bridle:D/S1=none, D/S2= partial,D/S3=full		Very wide shield, 6 pales of 4 lines, R & U touch shield, chief to left tail of S	
1710	15	19 M	31 - 75	5	R	Drunken die cutter	1 leans & spaced	Head high & rotate	4900	High and leaning 1,leaning back head		Very wide shield, 6 pales of 4 lines, engraver's scratch in azure	
1310	30	20 N	65 - 125	4	R	Drunken die cutter	1 leans & spaced	Head high leans left	4905	High and leaning 1,leaning back head more, cud below scroll		Very wide shield, 6 pales of 4 lines, R & U touch shield, chief to left tail of S	
770	20	21 N	201-500	3	R	Six on Side	large date	wide shield	4910	Rotated left head, R ear between A and C, 6 leans right, N of Nova too low,		Very wide shield, 6 pales of 4 lines, R & U touch shield, chief to left tail of S	
1453	20	21 O	31 - 75	5	R	Six on Side	large date	wide shield	4915	Rotated left head, R ear between A and C, 6 leans right, N of Nova too low,		Wide shield, 6 pales of 4 lines, U very close to L & R shield sides.	
1454	15	21 P	31 - 75	5	R	Six on Side	large date		4920	Rotated left head, R ear between A and C, 6 leans right, N of Nova too low,		Narrow shield, 6 pales of 4 or 5 lines,4 hexagrams	
		21 R	5 - 8	7-	R	Six on Side	large date		4925	Rotated left head, R ear between A and C, 6 leans right, N of Nova too low,		Short narrow shield, chief points to center of B, 4 hexagrams, missing top bar of E	
		21 1/2 R	2	8	R	period after Caesarea	small date		4930	Large head unruly mane, scrollextends on both sides onf horse, period after A		Short narrow shield, chief points to center of B, 4 hexagrams, missing top bar of E	
		22 P	5 - 8	7	R	Coulterless		rounded shield	4935	Large head, scroll starts to left of head, small date, period after A		Narrow shield, 6 pales of 4 or 5 lines,4 hexagrams	
1284	12	23 P	200	4	R	Blundered 6		1780	4940	1780, 8 intersects exergual line, horse high		Narrow shield, 6 pales of 4 or 5 lines,4 hexagrams	
1455	40	23 R	201 - 500	3	R	Blundered 6		1780	4945	1780, 8 intersects exergual line, horse high		Short narrow shield, chief points to center of B, 4 hexagrams, missing top bar of E	
		23 1/2 R	3	8	R		small date	No . after Caesarea	4950	Large head, scroll extends well each side of horse base, plow blade almost touches denticle,		Short narrow shield, chief points to center of B, 4 hexagrams, missing top bar of E	
		24 I	3	7+		Plow over 86	Small Head	narrow shield	4955	horse high, short plow blade, plow base over 86, crude date,		Tall, narrow shield, pales of 4 lines	
		24 M	4	7+		Plow over 86	Small Head	Wide Shield	4960	horse high, short plow blade, plow base over 86, crude date,		Very wide shield, 6 pales of 4 lines, engraver's scratch in azure	
841	35	24 P	501 - 1,250	2	R	Plow over 86	Small Head	narrow shield	4965	horse high, short plow blade, plow base over 86, crude date,		Narrow shield, 6 pales of 4 or 5 lines,4 hexagrams	
		24 Q	4	7+		Plow over 86	Small Head		4970	horse high, short plow blade, plow base over 86, crude date,		long narrow shield, poorly detailed, pentcle and hexagram	
		24 R	31 - 50	5+	R	Plow over 86	Small Head		4975	horse high, short plow blade, plow base over 86, crude date,		Short narrow shield, chief points to center of B, 4 hexagrams, missing top bar of E	
want		25 S	31 - 75	5+	R	Eye nearly in neck			4980	Large head, tilted up, eye far back, ski beam		Left chief point highest, 6 pales of 3 lines, triangle back top of R	
2120	30	26 S	31 - 50	5+	R	Large Head Up Straight beam			4995	large head muzzle tilted up, straight beam, scroll co-terminous		Left chief point highest, 6 pales of 3 lines, triangle back top of R	
		26 d	2	8					4990	large head muzzle tilted up, straight beam, scroll co-terminous		Top middle chief almost touches left side of U, 4 hexagrams	
		80 rr	1	9			Contemporary cft			amateruish lettering retrograde n's, last numeral probably 6 but obliterated		amateurish lettering and shield	

1787 NEW JERSEY COPPERS (75 VARIETIES) (Continued)

Acc#	Got	Variety#		Composite #known	Siboni R	Mint	Nickname	Description		Whitman	Obv Details	Horse mm Width x H	Rev Details	Shield mm Width x H
		37	J	31 - 50	5+	R or B	GOITER		Square M in UNI	5140	Very small goiter head, ski beam,		Medium shield, chief L of U. /spur R of M in UNUM, 6 pales of 3	
		37	X	8 - 20	6+	R or B	GOITER			5145	Very small goiter head, ski beam,		Almost rectangular shield almost flat top & heavy outline, 6 pales of 3 lines,	
		37	Y	65 - 75	5	R or B	GOITER			5150	Very small goiter head, ski beam,		Left chief higher than Right medium shield fine outline	
1313 2492	8, 20	37	f	65 - 125	4	R or B	GOITER			5155	Very small goiter head, ski beam,		Medium shield beveled with bordermiddle chief lowest of 3. 6 pales of 4	
		38	L	1	9	R	Smallest head			5160	smallest head, co-terminous scroll slants up to right, J for 1, separated from 787		Medium outlined shield , chief between B & U. 4 hexagrams	
1317	20	38	Y	125 - 200	3		Smallest head			5170	smallest head, co-terminous scroll slants up to right, J for 1, separated from 787		Left chief higher than Right medium shield fine outline	
2127	20	38	Z	76 - 125	5	R	Smallest head			5175	smallest head, co-terminous scroll slants up to right, J for 1, separated from 787		Narrow beveled shield with narrow connected border, middle cief lower than sides,	
		38	a	31 - 75	5	R	Smallest head			5180	smallest head, co-terminous scroll slants up to right, J for 1, separated from 787		Right chief higher than left, whole medium beveled shield left of center 6 pales of 3. 2nd U high	
		38	b	13 - 30	6+	R	Smallest head	PLUKIBUS		5185	smallest head, co-terminous scroll slants up to right, J for 1, separated from 787		very small shield, heavily beveled, 6 pales of 4 lines,4 pentacles, PLUKIBUS	
1316	40	38	c	201 - 500	3	R	Smallest head			5190	smallest head, co-terminous scroll slants up to right, J for 1, separated from 787		Beveled shield off center to upper right, 7 pales of 3 lines	
1027	20	39	a	501 - 1,000	2	R	Hi 8 Low 7, very similsr to 38			5195	small head, small plow, coterminous scroll slants up, J for 1 separated from 787		Right chief higher than left, whole medium beveled shield left of center 6 pales of 3. 2nd U high	
want		40	b	33 - 50	5+	R or B	Llama head	Looks like deer h	PLUKIBUS	5200	medium head, thick neck, plaited mane, S beam, hand cut letters, scroll overlaps horse base		very small shield, heavily beveled, 6 pales of 4 lines,4 pentacles, PLUKIBUS	
want		41	c	30	5+	R	Googly Eye	7 vertical pales to shield		5205	small head, scroll widely separated starts n on left, big raised round eye, 1 curved beam separate from plow,		Beveled shield off center to upper right, 7 pales of 3 lines	
2847	12	42	c	31 - 75	5	R	Warthog	7 vertical pales to shield		5210	small head with die chip on snout, large riased eyeball, scroll extends on right		Beveled shield off center to upper right, 7 pales of 3 lines	
		42.5	c	2	8					5215	like 42 only R ear points left of A not at A left arm, and co-terminous scroll		Beveled shield off center to upper right, 7 pales of 3 lines	
2123	20	43	Y	65 - 75	5-	R		reverse die clash		5220	Medium head with bulbous muzzle,R ear almost touches Cscroll weak ends short on Right.		Left chief higher than Right medium shield fine outline. Die clash seen in shield	
592	50	43	d	over 1250	1	R		outlined shield		5225	Medium head with bulbous muzzle,R ear almost touches Cscroll weak ends short on Right.		Beveled shield, top middle chief almost touches left side of U, 4 hexagrams	
		44	e.1	8 - 13	6+	R	Sleigh Runner		7 vertical pales to shield	5230	Wide chest, small muzzle, plow handle almost touches N, sleigh beam, co-terminous scroll		Beveled shield off center to upper right, 7 pales of 3 lines, like c only larger more relief, & outlined which touches U maybe 1st D/S	
1285	12	44	d	76 - 125	4	R	Sleigh Runner		outlined shield	5235	Wide chest, small muzzle, plow handle almost touches N, sleigh beam, co-terminous scroll		Top middle chief almost touches left side of U, 4 hexagrams	
1598	12	45	d	31 - 50	5+	R	"Hypertrophic Ear"		Outlined shield	5240	Wide chest narrow long muzzle, sleighrunner like beam, I for 1,		Top middle chief almost touches left side of U, 4 hexagrams	
2124	40	45	e	31 - 75	5-	R	"Hypertrophic Ear"			5245	Wide chest narrow long muzzle, sleighrunner like beam, I for 1,		Left chief touches U as outlined shield off center to left, 6 pales of 3 lines,	
1318	30	46	e	over 1250	1	R	Clashed Die	clashed shield to R and L of horse		5250	narrow neck like serpent, round eye, clash of shield azure R & L of horse		Left chief touches U as outlined shield off center to left, 6 pales of 3 lines,	
		47	e	21 - 30	6-	R			Outlined shield	5255	Short wide chest, small date, S beam,		Left chief touches U as outlined shield off center to left, 6 pales of 3 lines,	
		47 1/2	e	2	8	R			Outlined shield	5260	small head, centrally weak, filled 8,		Left chief touches U as outlined shield off center to left, 6 pales of 3 lines,	
		48	X	4 - 12	7+	R				5265	small horse, last A low, lower coulter concave, short plow handles, top Part of E in AE missing		Almost rectangular shield almost flat top & heavy outline, 6 pales of 3 lines,	
1314	10	48	f	201 - 500	3	M				5270	small horse, last A low, lower coulter concave, short plow handles, top Part of E in AE missing		Medium shield beveled with bordermiddle chief lowest of 3. 6 pales of 4	
2176 1286	35	48	g	over 1250	1	R	very common		Batman shield	5275	small horse, last A low, lower coulter concave, short plow handles, top Part of E in AE missing		"Batman" beveled and pronounced outlined shield,6 pales of 4	
1319	25	52	i	250 - 500	3	R	last 7 down			5280	wide chest beady eye, straight beam, date slopes down,S high, last A low		Outlined beveled shield slightly off center to left and up, 6 pales of 3, left chief higher	
1315	12	53	j	76 - 125	4	R	Pushed up small 8	period after CAESARIA		5290	large detailed big cheek head, scroll adheres to barrel chest. Coulter almost touches blade		Medium outlined shield chief points to R part of B. 4 hexagrams, 2 sprigs, 6 pales of 4	
692	30	54	k	201 - 500	3	R or B	Serpent Head			5295	Large serpent head off center to left, squat plow S beam		Shortbeveled and outlined shield, 6 pales of 3, outline almost touches left U, thick l, R from P + punch	
1602	20	55	l	33 - 64	5	R	Big plow knobs touching dentils		PLURIRUS	5300	Small high head, big plow knobs almost touch dentils, straight beam		Heavy inner shield border, 6pales of 3, center chief drifted to right PLURIRUS	
1028	25	55	m	76 - 125	4	R	Big plow knobs touc	BUS over BS	U over S	5305	Small high head, big plow knobs almost touch dentils, straight beam		Medium beveled shield, middle chief points a little right, 2nd U over S	
645 & 1662	12,2 5	56	n	over 1250	1	R or E	Camel head	Commonest New Jersey		5310	Camel like raised muzzle, left ear touches C, lower plow handle to edge, slight S beam, N large, C low		Large outlined beveled shieldleft chief touches R and lower than right, 6 pales of 3, U top serifs touch	
		57	n	20 - 30	6+	R or B	Camel head	Bent coulter		5315	head back, not as camel like as 56, curved coulter, singletree touches A		Large outlined beveled shieldleft chief touches R and lower than right, 6 pales of 3, U top serifs touch	
1747	12	58	n	31 - 75	5-	R or B	Camel head			5320	High Camel head ears between A & C, star below plow handles, date tilts down		Large outlined beveled shieldleft chief touches R and lower than right, 6 pales of 3, U top serifs touch	
1469	12	59	o	31 - 50	5+		Saw Tooth	one AG known with smaller shield		5325	Flat squat flatly engraved head, straight beam touches A, small J for 1. Big dentils		Tall medium shield, long 6 pales of 4, short azure, big dentils	
		59	mm	1	9	M	Saw Tooth			5335	Flat squat flatly engraved head, straight beam touches A, small J for 1. Big dentils		Short beveled shieldsmaller denticles widely spaced	
771&1281	12	60	p	76 - 125	4	M			PLURIBS	5340	Thin neck, hairs like string, big pointy ears, 3 sprigs below scroll, small J for 1		6 sprigs below small beveled shield, 6 pales of 4, PLURIBS, horseshoe U's	
2129	12	61	p	31 - 75	5	M			PLURIBS	5345	Same as 60 except oriented differently and alwys die break over mane.		6 sprigs below small beveled shield, 6 pales of 4, PLURIBS, horseshoe U's	
1029	40	62	q	201-500	3	M	Hidden Initials			5350	Pushed up small 8, J for 1, 3 sprigs over WM, tall high head, period after A		small to medium shield crossed branches below shield,	
		62	r	4	7+	M	Hidden Initials			5355	Pushed up small 8, J for 1, 3 sprigs over WM, tall high head, period after A		tall narrow shield with very sall azure, crossed branches below	
		62 1/2	r	1	9	M	WM			5360	WM for William Mould below horse scroll, no sprigs over	12x8	tall narrow shield with very sall azure, crossed branches below	19.5 x 16
1288	40	63	q	500 - 1,000	3	M			Broken Shield	5365	Large head slightly to R narrow chest, 3 sprigs below scroll, small 8 from two o punches		small to medium shield crossed branches below shield, often die breaks round shield	
1470	12	63	r	31 - 75	5	M				5370	Large head slightly to R narrow chest, 3 sprigs below scroll, small 8 from two o punches		tall narrow shield with very sall azure, crossed branches below	
1335	20	63	s	500 - 1,000	2	M				5375	Large head slightly to R narrow chest, 3 sprigs below scroll, small 8 from two o punches		medium fine outlined shield 2 crossed branches below, large gaps to inscription	
1368	12	64	t	over 1250	1	M	C almost on Ear		Trident Shield	5380	High "large head" (looks small) wide chest, Calmoston ear, scroll short each side, small J for 1		pointed chiefs , thick beveled border, large azure, 6 pales of 4, Horseshoe U's	
1599	8	64	u	31 - 75	5	M	C almost on Ear			5390	High "large head" (looks small) wide chest, Calmoston ear, scroll short each side, small J for 1		Wide medium shield, right chief touches U, inscription startes low ends high, 6 pales of 5 or 6	
		(64.5	r)	1	9	M					Now listed as 65 1/2			
2122	30	68	w	31 - 75	5	U				5400	Small head, sloping up 10 degrees from exergual line, top handle aligns with lower N serif		Beveled, bordered triangular shield, high mid chief, 6 pales of 3	
		69	w	3	8	U	Phantom horse			5405	no horse or plow seen, CESEREA for CAESAREA		Beveled, bordered triangular shield, high mid chief, 6 pales of 3	
		70	x	7 - 12	7-	U	Plaited mane	Like deer but Convex top curve		5410	Stocky Head Plaited Mane, no eyye, ears almost touch C & A, 1 quatrefoil before legend touching plow handle, sprigs, no scroll		Medium narrow shield, single border, mid chief lower than side chiefs, set very low, sprigs below, pentacles	
		71	y	13 - 30	6	U	Plaited mane	Like deer but Convex top curve		5415	Large stocky head ears set low usually can't see eye, 1 quatrefoil after legend, die break from 87 to 1st A, sprigs		Medium single outline shield, mid chief very low, 6 pales of 3 lines, 4 pentacles, sprigs below usually cannot see.	
		72	z	31 - 75	5	U	Plaited mane	Deer but Convex top curve		5420	Very large head, plaited mane, 2 punctuating pentacles, sprigs,		Medium shield, middle chief low, 6 pales of 4 4 punctuating pentacles, crossed branches below longer on right	
		(72.5	aa)	1	9	U					Not listed by Whitman, Siboni, or Demling			
want		73	aa	50 - 100	4	U	Plaited mane	Deer but Convex top curve		5430	Medium head, stocky, no eye, tilted forward 20 degrees, sprigs below pentacle after A		Shield set off to right, middle chief low, punctuating pentacles, crossed branches below	
		73 1/2	jj	1	9	U	Plaited mane	Deer but Convex top curve		5435	Punctuating pentacles, stocky medium head, can't see if plaited		Shield only seen at bottom tip, punctuating pentacles	
		81	ll	3	8		Contemporary cft			5440	cartoonish head hexagram after A		Small shield with 4 pales	
		82	hh	-	-		Delisted				Double obverse coin			
		83	ii	9	7-		Contemporary cft			5445	Horse looking upindistinct plow, does not look like forgery		small triangular shield of 7 pales like a small c reverse, hexagram punctuation,denticles	
		84	kk	2	8		Contemporary cft			5455	Large head offset to leftfuzzy details like cast, hand lettering		Large crude shield 5 pales of 3, 1 pale of 2, very coarse lines like cast, R and B retrograde	
		85	nn	1	9		Contemporary cft				Not listed in Whitman, Demling, or Siboni			

1788 NEW JERSEY COPPERS (16 VARIETIES OF WHICH 3, 4 OR LESS KNOWN)

Acc#	Got	Variety#		Composite #known	Siboni R	Mint	Nickname	Description		Whitman	Obv Details	Horse mm Width x H	Rev Details	Shield mm Width x H
1712	8	49	f	33 - 64	5	U	Head Left			5470	Head L, plow L, modelled on moldboard plow, loop not singletree.Thick scroll	12 x 9	Medium shield beveled w/ bordermiddle chief lowest of 3. 6 pales of 4	18 x 15
922	18	50	f	201 - 500	3	U	Head Left			5475	Head L, plow L, modelled on moldboard plow, loop not singletree.Thick scroll onto horse		Medium shield beveled w/ bordermiddle chief lowest of 3. 6 pales of 4	
		51	g	30	6-	U	Head Left			5480	similar to above only smaller head, 6 scroll nodules widely separated		"Batman" beveled and outlined shield,6 pales of 4	
1599	8	65	u	60 - 70	4	M	C on Ear			5495	long thin muzzle, thin neck, wide chest, C touches horse's right ear		Wide medium shield, right chief touches U, inscription startes low ends high, 6 pales of 5 or 6	
		65 1/2	r	2	8	M	C almost on Ear	small high head		5490	Small high head C almost on ear, period after A, straight beam		tall narrow shield with very sall azure, crossed branches below	
		66	u	4 - 8	7+	M	Braided Mane			5500	small head, long flowing "braided mane, big cheek and chest, 3 hexgrams punctuate inscr.		Wide medium shield, right chief touches U, inscription startes low ends high, 6 pales of 5 or 6	
1748	25	66	v	31 - 50	5+	M	Braided Mane			5505	small head, long flowing "braided mane, big cheek and chest, 3 hexgrams punctuate inscr.		medium single border shield, 6 pales of 4, crossed double sprig branches below adjascent to hexagrams	
699	25	67	v	over 1250	1	M	Brushed Mane			5510	Small head, centered wide chest brushed mane to 10 - 11 o'clock, 3 hexagrams		medium single border shield, 6 pales of 4, crossed double sprig branches below adjascent to hexagrams	
		74	bb	30	5+	B	Stocky Head	fox left	Running Fox	5515	Stocky downward looking head with curved combed up mane, coulter seldom seen, hexagram then quatrefoil punctuation		Large U shaped single medium outline, 6 pales of 4 lines, fox at 7 o'clock, then quatrefoil punctuation, antler like branches below	
1619	15	75	bb	75 - 125	4	B	stocky Head	Fox left	Running Fox	5520	Long combed mane, stocky medium head10 degrees up from exergual line, ear almost touches S, quatrefoil punctuation,		Large U shaped single medium outline, 6 pales of 4 lines, fox at 7 o'clock, then quatrefoil punctuation, antler like branches below	
		76	cc	4 - 6	7+	B		PLUKIBUS Fox right	Running Fox	5525	Downward looking stocky headnear ear opening large, hexagram and quatrefoil punctuation, no sprigs		Large wide single border shield, 6 pales of 4, 4 quatrefoils punctuate, antler like branches below with adjascent quatrefoils, Running fox on right.	
		77	cc	2 - 3	8	R		Fox right	Running Fox	5530	Socky head with long brushed mane looking down, quatrefoil puntuation.		Large wide single border shield, 6 pales of 4, 4 quatrefoils punctuate, antler like branches below with adjascent quatrefoils, Running fox on right.	
1320	25	77	dd	200 - 500	4	R	no cocked die Die State 1		Running Fox	5535	Siboni lists as die state 1 of 77, downward looking stocky head with long brushed mane, and quatrefoil punctuation 200-500 known		Large single outline shield, antler like sprigs below, 6 pales of 4, middle chief points to I4 quatrefoils and frog left	
2128	12	(77.5	dd)	13 - 20	7	B	"Cocked Die Clash" = Die State 2		Running Fox		Semi-circle over horses neck actually die state 2 or cocked die clash, now called **77 dd D/S 2**, plow blade (=share) much smaller		Large single outline shield, antler like sprigs below, 6 pales of 4, middle chief points to I4 quatrefoils and frog left	
753	8	(78	dd)	501 - 1,250	2	B	Cocked die and Late Die State = D/S/ 3		Running Fox		This is actually 77dd cocked die clash with late die state, and now called **77 dd D/S 3.** Straight die crack 9 - 1 o'clock, plow blade much smaller.		Large single outline shield, antler like sprigs below, 6 pales of 4, middle chief points to I4 quatrefoils and frog left. Die crack left side of shield	
		79	ee	3	8	U	Frightened Head		Contemporary cft	5550	cartoonish head angle back amateur lettering		hand lettering pentacle punctuation, 6 pales of 3	

151 varieites, of which **35 have 4 or less known** i.e. uncollectible, and 17b comes in large and small planchet, and 77dd comes in 3 die states.
Thus 113 collectible varieties which cd expand to 116 with 17b & 77dd variations.

77 obverse collectibles, 57 reverse collectibles

	COLLECTIBLE REVERSES > 10 known
A	St Pat 1/4 d
B	St Pat 1/2 d
C	#1451 Imm Columb electrc Wash electro
D	#769 Washington Electro
E	Date under plow beam, 5-8 known of **7-E**
F	3-4 exist
G	#1367
H	Want "Cuneiform shield" **11-H** 21- 30 exist
I	about 30 exist **(12-I)**
J	#1722#2125
K	#1283
L	#1282#1597,#1746,,#1456,#227
M	#502
N	#1310
O	#1453
P	#841, #1454
Q	4 exist
R	#1455
S	#2120
T	#1311
U	#2121
V	**34-V** 13 - 30 exist
W	35 W 3 exist
X	**37-X** 8 - 20 exist
Y	#1317
Z	#2127
a	#1027
b	#1468
c	#1316
d	#592
e	#2124
f	#2492
g	#1286
h	10 h 5 - 8 exist
i	#1319
j	#1315
k	#692
l	#1602
m	#1028
n	#1662
o	#1469
p	#1287, #2129
q	#1029,#1288
r	#1470
s	#1335
t	#1368
u	#1599
v	#1748, #699
w	#2122
x	Plaited mane want 73 aa
y	Plaited mane want 73 aa
z	Plaited mane want 73 aa
aa	Plaited mane want 73 aa Want this one
bb	#1619
cc	4-6 exist 76-cc
dd	#1320
ee	3 exist 79-ee
ff	1 exists 80-ff
gg	4 exist 10-gg
hh	1 exists 11-hh
ii	9 exist 83-ii
jj	1 exists 731/2-jj
kk	2 exist 84-kk
ll	3 exist 81-ll
mm	1 exists 59-mm
nn	1 exists 85-nn
oo	1 exists10-oo
pp	NON VI (obverse)electro 1 exists 4 1/2-pp

Got 43 of 50 collectible reverese

	COLLECTIBLE OBVERSES > 10 known
1	St Pat 1/4 d
2	At Pat 1/2 d
3	Imm columb electro
4	Washington
4 1/2	Non Vi electro
5	2 exist of **5-C**
6	#769, #1451
7	5- 8 known of 7E date under plow beam
8	3-4 exist
9	7 - 8 exist
10	16 exist of 10 G
11	Want 11 H
12	#1367
13	13-30 exist of 13 J
14	#1722
15	#1452,#1282,#1452,#2121
16	#227
17	#1468, #1283
18	#502
19	#1710
20	#1310
21	#770,#1453
22	5 - 8 exist for 22 P
23	#1455
24	#841
25	want "eye nearly in neck" 31-75 exist **25-S**
26	#2120
27	50 - 60 want 27 S
28	#1597
29	76-200 exist want
30	#1746
31	#1456
32	#1311
33	#1457
34	#1312
35	Want **35-J** 13- 30 exist Overdate
36	"Stray dog" variety 4 - 12 exist
37	#2492
38	#1316, #1317
39	#1027
40	Want 40 b
41	Want 41 c
42	Want 42 c
43	#592
44	#1285
45	#2124, #1598
46	#1318
47	21- 30 exist
48	#1286
49	#1712
50	#922
51	30 exist of **51-g** head left
52	#1319
53	#1315
54	#692
55	#1028, #1602
56	#1662
57	20 - 30 exist
58	#1747
59	#1469
60	#1287
61	#2129
62	#1029
63	#1288
64	#1368
65	#1599
66	#1748
67	#699
68	#2122
69	3 exist
70	Plaited mane want 73 aa 7 - 12 exist of **70-x**
71	Plaited mane want 73 aa 13-30 exist of **71-y**
72	Plaited mane want 73 aa 31- 75 exist of **72-z**
73	Plaited mane want 73 aa 50-100 exist of **73-aa**
74	30 exist 74 bb stocky head
75	#1619
76	4-6 exist 76-cc
77 D/S	#1320
77 D/S	#2128
77 D/S	#753

Damon Douglas made an interesting table of weight adjustment for wear of large cents. The last column is a study of Lincoln cents by Charles Smith:

Condition	Weight to add (grains)	Grams	% Weight loss large cents	Lincoln Cents
UNC	0	0	0	0
XF	1	0.06	0.6%	0.12%
VF	2	0.13	1.2%	0.31%
F	4	0.26	2.4%	0.49%
VG	6	0.39	3.6%	1.07%
G	8	0.52	4.8%	2.82%
Fair	11	0.72	6.6%	4.43%
Poor	15	0.98	8.9%	-

Tony Carlotto also compared Good to XF large cents and found a 2.8% weight loss, versus Douglas' 4.2%. Synthesizing all of these, weight loss from XF to Good is 2.8, 4.2 and 4.3%. Yet a Good coin looks like it has lost a lot more than 3-4% of its metal. Smith gives a reason for this. "Peening" is the process of relentless hammering of a coin which rearranges rather than removes metal.

The lesson is that wear mainly rearranges metal (called peening), losing only around 3–4% from XF to Good.

References

Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American Coins*. Whitman Publishing, Atlanta, GA. 2009.
Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins*. Doubleday, NY. 1988.
Bressett, Kenneth E., *Vermont Copper Coinage, in Studies on Money in Early America* Chapter 11 pp 173—198, ANS, NY 1976
Crosby, S., *The Early Coins of America*. Boston 1875.
Douglas, D.G., *The Copper Coinage of the State of New Jersey*. ANS 2003.
Dickeson, M., *American Numismatical Manual*. Lippincott, Philadelphia, 1859.
Evans, G.G., *Illustrated History of the United States Mint*. Evans Publishing, Philadelphia, 1886.
Hickcox, J. *An Historical Account of US Coinage*. Albany, New York. 1858
Hoover, O.D. *A Horse of a Different Color: The Allure of New Jersey Coppers*. ANS Magazine, Sept. 2013. ANS, New York.
Maris, E., *A Historic Sketch of the Coins of New Jersey With a Plate*. Self-published, Printed by William Bellows, Philadelphia, 1881.
Oliver, N and Kelley, R., *The Life of Albion Cox*. Numismatist. Sept. 2013 pp 45—49. ANA.
Siboni, R.S., Howes, J.L., Ish, A.B., *New Jersey State Coppers*. ANS and C4. New York, 2013.
Smith, C.W. *Weight analysis, weight loss, wear, porosity and grade in copper coinage*. CNL August 2002, pp 2345-2357.
Stewart, F.H., *History of the First United States Mint*. Privately Printed, 1924. LiteraryLicensing.com
Trudgen, G.A., *A Brief Look at the Life of Thomas Goadsby*. CNL sequential pp1284—1290. February 1992.
Trudgen, G., *John Bailey's New York City Mint*. Pages 203 - 220. Journal of Early American Numismatics, Vol. 2., No. 1. June 2019 ANS, New York.
Trudgen, G., *Samuel Atlee's New York City Brewery and Mint*. Pages 27-58. Journal of Early American Numismatics, Vol. 1., No. 2. Dec. 2018 ANS, New York.
Trudgen, G., *Walter Mould: Convicted Felon.* Journal of Early American Numismatics. Pages1—19. Vol. 1., No. 2. Dec. 2018 ANS, New York.
Vlack, R.A., *Early American Coins*. Johnson City. New York 1965.
Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*. 72nd Edition. Whitman Publishing LLC Pelham, AL 35124.
By No machine-readable author provided. Kmusser assumed (based on copyright claims). - No machine-readable source provided. Own work assumed (based on copyright claims)., CC BY-SA 2.5, ttps://commons.wikimedia.org/w/index.php?curid=883698By James R. Lambdin, after John Trumbull - http://www.cr.nps.gov/history/online_books/declaration/bioa.htm, Public Domain, https://commons.wikimedia.org/w/index.php?curid=433610https://www.coinbooks.org/esylum_v18n39a17.html
https://en.wikipedia.org/wiki/Matthias_Ogden#/media/File:The_Death_of_General_Montgomery_in_the_Attack_on_Quebec_December_31_1775.jpeg
By Flag of New Jersey.svg: xrmap - Flag of New Jersey.svg, Public Domain, https://commons.wikimedia.org/w/index.php?curid=6921716
By Illustration made by Walter Manton (1832? - October 22, 1895), an employee in the State Department. - Copied from Google Books version of the illustration facing page 26 in Gaillard Hunt's The Seal of the United States: How it was Developed and Adopted, 1892., Public Domain, https://commons.wikimedia.org/w/index.php?curid=5816707

The coins which follow include 71 different New Jersey copper varieties (one is an electrotype of Maris 4-C), the Washington/shield die paring. Seventy-one coins is a lot to show, but the object of this book in the first place is to document my collection!

651

Mark Newby Large St. Patrick Copper. Martin 4/E; 29mm, 9.52 Grams AVF 20 Known

353

Mark Newby Small St. Patrick Copper. Martin 7a/Cb.1; 26mm, 7.03 Grams EF 9 - 20 Known

857

New Jersey Wyon Pattern Electro 1786, Maris 3-C; 28mm, 10,76 Grams EF

2939

New Jersey Copper "Shaggy Mane" Coulterless. Maris 12-G; NGC Fine Details

1722

New Jersey Copper 1786. Maris 14-J, "Stegosaurus Head". R1; 27.5mm, 9.12 Grams EF

1596

New Jersey Copper 1786. Maris 15-J, "Leaning Head". R4; 28mm, 9.18 Grams F+

1282

New Jersey Copper 1786, Maris 15-L, LDS "Leaning Head" R4; 27mm, 9.07 Grams VF

1452

New Jersey Copper Maris 15-T, "Leaning Head" R3; 27.5mm, 9.05 Grams VF

227

New Jersey Copper 1786, Maris 16-L "Protruding Tongue" R2; 28mm, 9.43 Grams VF

1283

New Jersey Copper 1786, Maris 17-K, Squat Plow R3; 29.5mm, 8.84 Grams F+

1468

New Jersey Copper 1786, Maris 17-b, "PLUKIBUS" R3; 27mm, 8.56 Grams AEF

2125

New Jersey Copper 1786, Maris 18-J "BRIDLE" R5+; 28mm, 9.56 Grams VF

502

New Jersey Copper 1786, Maris 18-M "BRIDLE" R3; 28.5mm, 9.93 Grams EF

1710

New Jersey Copper 1786, Maris 19-M "Drunken Die Cutter (1 of Date)" R5; 28.5mm, 9.45 Grams VF

1310

New Jersey Copper 1786, Maris 20-N "Drunken Die Cutter (1 of Date)" R4; 29mm, 10.40 Grams AEF

#770

New Jersey Copper 1786, Maris 21-N "Six on Side (in Date)" R3; 28 mm, 9.83 Grams AEF

1453

New Jersey Copper 1786, Maris 21-O "Six on Side (in Date)" R5; 28 mm, 11.54 Grams VF

1454

New Jersey Copper 1786, Maris 21-P "Six on Side (in Date)" R5; 28.5 mm, 8.40 Grams F+

1455

New Jersey Copper 1780, Maris 23-R, "Blundered 6 to O" R3; 28.5mm, 9.29 Grams VF+

841

New Jersey Copper 1786, Maris 24-R, Plow Over 86, R2; 27.5mm, 8.81 Grams VF+

2120

New Jersey Copper 1786, Maris 26-S, Large Head Up, R-5+; 28 mm, 10.04 Grams VF+

1451

New Jersey Copper 1787, Maris 6-C, Pattern Shield Reverse, R-5-; 30 mm, 8.58 Grams VF-

769

New Jersey Copper 1787, Maris 6-D, "Double Coulter" (Singletree Looks Like 2nd Coulter) R-2; 29 mm, 8.99 Grams VF+

1597

New Jersey Copper 1787, Maris 28-L, "Disappearing Knobs" R-3; 28 mm, 9.67 Grams VF+

2126

New Jersey Copper 1787, Maris 28-S, "Disappeared Knobs" R-5-; 27.5 mm, 8.90 Grams VG+

1746

New Jersey Copper 1787, Maris 30-L, "Knobs, Plowshare, & Singletree Touch Dentils" R-4; 27 mm, 9.35 Grams VF+

1456

New Jersey Copper 1787, Maris 31-L, "Shattered Die" (Die State 3 at 8 & 9 O'clock) R-3; 27.5 mm, 10.06 Grams VF

1311

New Jersey Copper 1787, Maris 32-T, Big Knobs, Broken A's R-2; 27.5 mm, 9.78 Grams EF

1457

New Jersey Copper 1787, Maris 33-U, R-4; 27.5 mm, 9.13 Grams VF-

2492

New Jersey Copper 1787, Maris 37-f "Goiter" R-4; 29 mm, 9.87 Grams VF

1312

New Jersey Copper 1787, Maris 34-J "Deer Head" R-3; 28 mm, 8.27 Grams VF/F

2127

New Jersey Copper 1787, Maris 38-Z Smallest Head R-5; 27.5 mm, 9.40 Grams VF-

1316

New Jersey Copper 1787, Maris 38-c Smallest Head R-3; 27.5 mm, 10..34 Grams VF+

1027

New Jersey Copper 1787, Maris 39-a Low 7. Planchet Cutter's Arc R-2; 28 mm, 9.71 Grams VF+

2847

New Jersey Copper 1787, Maris 42-c (Incorrect Ink Mark), Warthog R-5+; 27 mm, 9.36 Grams F

2123

New Jersey Copper 1787, Maris 43-Y, Reverse Die Clash, R-5-; 27 mm, 9.94 Grams VF

592

New Jersey Copper 1787, Maris 43-d, Outlined Shield, R-1; 27 mm, 9.76 Grams AU

1285

New Jersey Copper 1787, Maris 44-d, "Sleigh Runner" (Plow Beam), R-6+; 27.5 mm, 9.21 Grams F/VF

1598

New Jersey Copper 1787, Maris 45-d, "Hypertrophic Ear", R-5+; 27 mm, 9.41 Grams VF-

2124

New Jersey Copper 1787, Maris 45-e, "Hypertrophic Ear", R-5; 27.5 mm, 9.46 Grams EF/VF

1318

New Jersey Copper 1787 Maris 46-e, "Clashed Die" R-1; 27.5mm, 9.75 Grams EF

1286

New Jersey Copper 1787 Maris 48-g, Batman Shield, R-1; 27.5mm, 9.79 Grams VF+

1319

New Jersey Copper 1787 Maris 52-I, Low Last 7, Broken A's, R-I; 28mm, 9.07 Grams VF+

1315

New Jersey Copper 1787 Maris 53-j, Pushed up Small 8, R-3; 28mm, 9.45 Grams F

692

New Jersey Copper 1787 Maris 54-k "Serpent Head", R-3; 28mm, 7.05 Grams VF+

1602

New Jersey Copper 1787 Maris 55-L "PLURIRUS", R-5; 27.5mm, 9.04 Grams VF+

1028

New Jersey Copper 1787 Maris 55-m "BUS over BS", R-4; 28mm, 9.54 Grams VF Scratch

1662

New Jersey Copper 1787 Maris 56-n "Camel Head", R-i; 27.5mm, ? Wt PCGS VF 25

1747

New Jersey Copper 1787 Maris 58-n, High "Camel Head", R-5; 29mm, 7.48 Grams F

1469

New Jersey Copper 1787 Maris 59-o, "Saw Tooth", R-5+; 30mm, 8.15 Grams VF-

2129

New Jersey Copper 1787 Maris 61-p, "PLURIBS", R-4; 30mm, 9.44 Grams F

1029

New Jersey Copper 1787 Maris 62-q, "Hidden Initials", R-3; 31mm, 9.17 Grams EF

1288

New Jersey Copper 1787 Maris 63-q,"Broken Shield" (Die State i. not yet Broken) R-3; 31mm, 9.38 Grams VF+

1470

New Jersey Copper 1787 Maris 63-r, R-5; 30.5mm, 9.65 Grams F+

1335

New Jersey Copper 1787 Maris 63-s, R-2; 30.5mm, 9.34 Grams VF+

1368

NEW JERSEY COPPER 1787 MARIS 64-T, "TRIDENT SHIELD" R-1; 31MM, 8.28 GRAMS VF VARNISH RESIDUE

2122

New Jersey Copper 1787 Maris 68-w, R-5; 27mm, 9.04 Grams VF+

1712

New Jersey Copper 1788 Maris 49-f "Head Left", R-5; 29mm, 9.11 Grams F Striations

922

New Jersey Copper 1788 Maris 50-f "Head Left", R-3; 29mm, 9.25Grams F

1599

New Jersey Copper 1788 Maris 65-u, C Touching Ear R-5; 28mm, 9.05 Grams F Bronze Disease

1748

New Jersey Copper 1788 Maris 66-v, "Braided Mane" R-5+; 29.5mm, 8.07 Grams VF

699

New Jersey Copper 1788 Maris 67-v, "Brushed Mane" R-1; 28.5mm, 9.26 Grams VF+

1320

New Jersey Copper 1788 Maris 77-dd "Running Fox, Stocky Head" R-3; 27mm, 9.76 Grams F+

2128

New Jersey Copper 1788 Maris 77-dd Die State 2 (Old 77 1/2-dd) "Cocked Die Clash" R-7; 27mm, 9.16 Grams VG+

753

New Jersey Cu 1788 Maris 77-dd Die State 3 (Old 78-dd) Cocked Die Clash & Rev. Die Crack R-2; 29mm, 9.57 Grams VF-

CHAPTER TWENTY-FOUR
VERMONT COPPERS

John Hickox 1858
John Hickcox wrote that the Vermont Legislature granted a Vermont Copper franchise to Reuben Harmon Jr. of Rupert, Vermont in June 1785. The franchise started the next month and lasted for two years. Harmon had to give a bond for $5,000 (an enormous sum at the time). The contract stipulated the coppers be at least 1/3 ounce Troy i.e. 10.37 grams. This was unusual as authorities usually listed copper weights in avoirdupois, and only precious metals in Troy.

Even regal coppers were not this heavy. In October 1786 Harmon applied for an eight-year extension to start in July 1787, which the Vermont Assembly granted. They also reduced the required weight to "4 pennyweight and 15 grains" (7.19 grams). He had to pay the Republic of Vermont 2½% of copper coined starting in July 1790, but nothing before that.

Before 1781 (when Washington defeated the British at Yorktown), Vermont was interested in becoming a British dependency. But after 1781, Vermont leant towards becoming part of the new America.

Hickcox said that in 1787 and 1788 the British negotiated with Vermont to make it a Crown dependency, which sounds late to me. But this is how he explained the 1787 Britannia and 1788 George III mules.

Harmon's partners were William Coley, Elias Jackson and Daniel Voorhis. Hickcox noted that on June 7th, 1787 Harmon's partnership merged with Machin's six partners for the remaining eight years. Hickcox supposed that William Coley cut the dies.

Montroville Dickeson 1859
Dickeson listed the VERMONTS and the VERMONTENSIUM landscape coins omitting the VERMONTIS. He commented, "it is difficult to procure perfect specimens".

He also described:
- 1787 Vermont Auctori bust left and right
- 1785 Tory copper i.e. George II obverse with Immune Columbia reverse (Vlack 15-85NY)
- 1788 Vermont Auctori 13 types
- George III / Britannia

Sylvester Crosby 1875
Crosby discusses Harmon's Rupert Mint and his Vermont franchise. It is hard to imagine many colonists at the time putting up a $5,0000 bond. Average wages were around $60 a year in 1790!

Harmon had to ask three others to help him put up such a large bond to Ira Allen, the Vermont Treasurer in 1785. The three were David Sheldon, Abraham Underhill and Benjamin Baldwin.

Crosby listed three landscape varieties:

- 1785 Vermontis 7 trees, bifid rays, 2 varieties
- 1785 Vermonts 8 trees, bifid rays, 1 variety
- 1786 Vermontensium 8 trees, pointed rays, 3 obverse and 2 reverse varieties.

He pointed out the reverses were not identical to the 1783 and 1785 Nova Constellatio types. Bifid ray ends are V-shaped for Vermonts, but U-shaped for Constellatios. Vermont rays connect to a ring around the eye. Constellatio rays are floating.

The eyebrow above the eye oriented each Vermont die with respect to the legend.

Carlotto later pointed out that the 1786 Vermontensium has three reverses:

RR6 (KB-4D) with 7 trees,
RR-7 (KB 5-E) with 8 trees,
RR-8 (KB 6-E) with 9 trees.

Crosby comments that after Harmon applied for the eight year extension, the General Assembly specified a new design. The obverse showed a head with the legend Auctoritate Vermontesium. The reverse was an allegory of the Genius of America (referring to the nature and virtues of America) with the legend IND ET LIB.

This time Reuben Harmon, Nathaniel Chipman, and Lemuel Chipman provided the $5,000 bond.

Crosby listed four bust type coins:

- 1786 3 obverse and 3 reverse dies. Only one was the Auctori Vermon i.e. Baby head facing right. The rest were Vermon Auctori facing left.
- 1787 4 obverse and 3 reverse dies
- 1788 9 obverse and 8 reverse dies
- Mule of Vermont Auctori / 1785 Immune Columbia

Crosby again identified Col. William Coley as the die engraver.

He also said Abel Buell left for Europe, transferring his Fugio minting to his son William who "removed the manufacturing to Rupert… in connection with a Mr. Harmon."

The New Haven mint closed in June 1787. William took the dies to Rupert and continued striking them there. Why would William leave the security and network of New Haven for the boonies? Crosby relates one of his interesting anecdotes.

While carrying a flask of aqua fortis (nitric acid) some Native Americans accosted William. They thought it was rum and insisted on drinking it, despite William's protestations. One died. They accused him of murder and chased him for weeks. Worried for his life, he fled to Vermont.

Crosby said that in 1800 Reuben traveled to Ohio, where he mined salt until he died in 1806 aged 56. It is amazing that 145 years ago numismatists already had that much detail about Vermont coinage!

Crosby was the standard reference on Vermont coins until 1920. Then Hillyer C. Ryder published in the American Journal of Numismatics in 1919 and the next year published *State Coinage of New England*, including 31 Ryder numbers.

John Richardson published *Colonial Coins of Vermont* in the 1947 Numismatist, adding four more numbers. After this, numismatists used Ryder-Richardson numbers (RR-1 through RR-35).

Robert Vlack 1965

Vlack says Coley engraved the 1785 landscape coin dies; William Buell engraved the 1786 and 1787 bust left dies.

After June 1787 Machin's mills struck most coins. Vlack said both Rupert, Vermont and Newburgh, New York struck Fugios. He listed:

- 3 landscapes 1785 and 1786
- 1786 Baby head (right)
- 1787 mailed bust right
- 1788 mailed bust right 4 types (including inverted C)
- Mules: Immune Columbia, Britannia, and Georgius III Rex

Kenneth Bressett 1976

In the late 1950s Bressett issued a set of four 5" by 7" photographic plates. They used Breen-Bressett numbers, BB-1 to BB 24 for Rupert coppers, and BB-101 – 112 for Machin's coppers.

In 1976 Ken Bressett published *Vermont Copper Coinage* in Studies on Money in Early America. He was the first to study die pairing, and concluded his study with a four-page illustrated die linkage chart. Bressett's scholarly research included modern understanding, die failure, die combinations, punch linking, and overstruck coins. He also stated that Coley, a silver and goldsmith in partnership with Daniel Voorhis and John Bailey, likely engraved the dies while in New York City.

He also pointed out that Coley's next dies of Bust left Vermonts copied Buell's 1786 and 1787 Connecticuts, but were not from worn Buell hubs.

When Machin partnered with Harmon on June 7th, 1787, Atlee agreed to engrave for Machin. Harmon signed a contract with Machin giving him 60% of all profits from Vermont coppers and 40% of profits from all other Machin's operations – generous indeed.

Bust left 1786 coins share the same bust punch as Connecticut Mailed Bust Left 1786 dies of Abel Buell, because William Buell brought his father's bust punches to Rupert, Vermont (see picture overleaf).

Vermont Bust left 1786. CT Bust Left 1786
#1092 and # 2934

Atlee engraved all Vermont dies after July 1787. A New York State April 1787 Act decreed underweight coppers were not legal tender. This included Nova Constellatios, which were imports from Wyon's mint in Birmingham.

We often find Connecticuts, Machin's and Vermonts overstruck on Nova Constellatios.

Vermont 1787 Bust Right #1858

1788 bust right coppers sometimes have stars in the legends, attributed to Atlee.

Vermont 1788 Bust right. Stars in Legend #774

Grading is very tricky because many coins were very flatly struck.

Walter Breen 1988
Breen comments on the STELLA QUARTA DECIMA (the fourteenth star) referred to local pressure in 1785 for Vermont to join the original 13 states. This happened in 1791, and would have happened earlier but for a border dispute with New York State.

The 1786 Vermontensium means of Vermont, thus better Latin. Auctoritate Vermontensium means by the authority of Vermont. Indépendence et Liberté was French for Independence and Freedom.

Breen comments that Coley's Baby Head imitated a James Atlee counterfeit of a 1786 Connecticut copper.

Breen repeated Crosby's story that Harmon left Vermont for Ohio in 1789 where he became a salt maker. Bushnell gave the date as 1790. Reuben's grandson said the date was 1800.

Breen lists:

1. Landscapes engraved by Cooley
   a. 1785 Vermonts Oct–Dec 1785
   b. 1785 Vermontis Oct–Dec 1785 7.2 grams
   c. Vermontensium Sept 1786
2. October 1786–June 1787
   a. 1786 Bust right baby head (Coley)
   b. 1786 Mailed bust left — Buell
   c. 1787 Mailed bust left — Coley
3, July 1787–1788
   a. 1787 Mailed bust right 2 varieties
   b. 1788 Mailed bust right 7 varieties
4. 1788–1789 Machin's Mills Issues
   a. Group I Bastard Heads (i.e. Britannia mule and 1788 round head)
   b. Group II 1788 Mailed bust right 6 types
   c. Group II mules
      i. Georgius III Rex
      ii. Immune Columbia

Tony Carlotto 1998
Carlotto published the most recent book specializing in Vermont coppers in 1998. Numismatic photography then was still in its infancy. He used a ring-flash and analog photography. All his photographs are black and white. He gives the following details:

Reuben Harmon Sr. was politically active and helped start the Republic of Vermont. He lived in Suffield, Connecticut, one town over from the Newgate copper mines. He moved to Vermont and met four times at Cephas Kent's Inn, Dorset,

Vermont, leading to the Dorset accords, instrumental in forming the Republic of Vermont. In January 1777 delegates from 28 towns declared independence from Quebec. Only New York and Vermont abolished slavery at the time. Reuben Harmon Sr. was a representative in the Vermont Legislature in 1780, and also a Justice of the Peace from 1780 to 1790. He also ran a postal system.

Reuben Harmon's son was Reuben Harmon Jr. the minter (1750–1806). Although Voorhis and Coley may have been technicians for the Rupert mint, Harmon was likely just a business partner like Elias Jackson.

Much travel from Newburgh, New York to Rupert was up the Hudson River perhaps to Schuylerville, then 34 miles over mountains to Dorset. They often moved heavy equipment by sled using oxen in the winter. If you traveled 150 miles by road from Newburgh to Rupert, the main road through Vermont ran through Bennington, Manchester, Dorset, East Rupert, Pawlet and thence to Lake Champlain.

Settlers and land speculators bought title to land from New Hampshire for land in southwest Vermont. But the British Crown gave legal title of the land to New York State in the 1760s. To protect their land from New York, Ethan and Ira Allen formed a militia and de facto government. In 1775 Ethan Allen and the Green Mountain Boys captured the British Fort Ticonderoga. Vermont declared independence as a republic in 1777. Continental Congress did not recognize Vermont's independence because New York State objected.

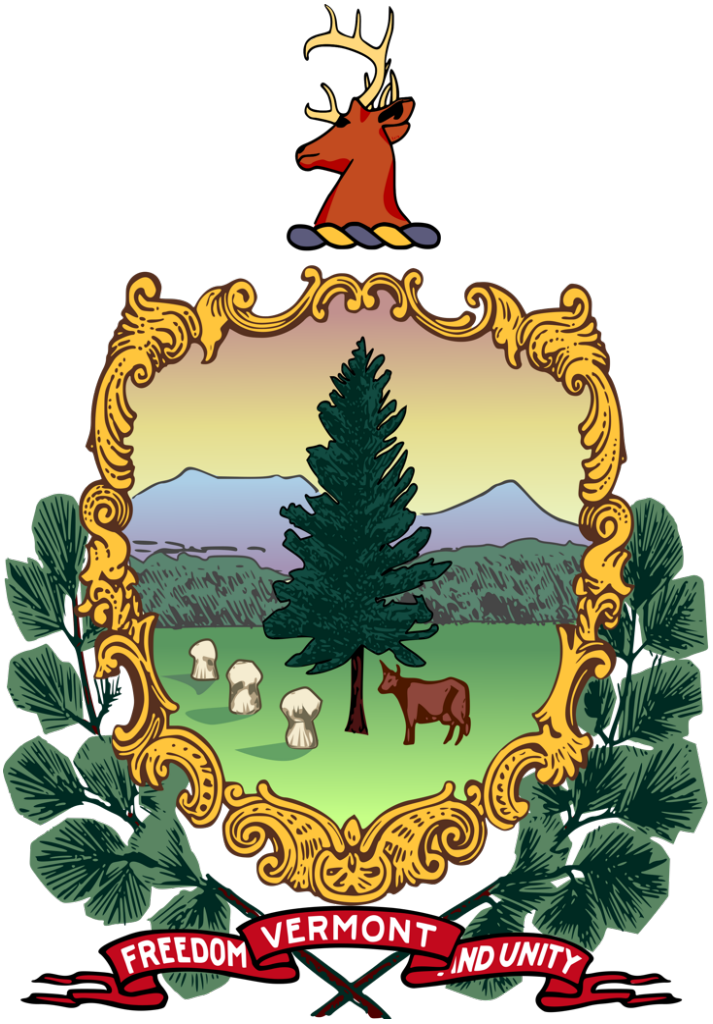
Vermont accepted both British and Continental army deserters. She negotiated to become part of British Canada. But after 1781, when the British surrendered at Yorktown, Vermont threw in their lot with the newly independent America.

From 1781 to 1791 Vermont's population increased from 30,000 to 85,000. Many came from Connecticut wanting more farmland.

Carlotto suspected they made the 1785 landscape coppers outside Rupert, possibly in New York City. However, he says the 1786 landscapes were made in Vermont because they are punch linked to the 1786 bust left copper. These dies were likely made outside Vermont. The 1785 and 1786 landscape coppers used different letter punches and beading.

The plow, as in the New Jersey copper, signifies agriculture. The sun rising on Vermont suggests it be the 14th state. The reverse with the all-seeing eye represents the eye of Providence.

The Baby head of 1786 has four wheat sheaves on the shield, not a union jack. The Vermont State Seal has wheat sheaves. Vermont was a major wheat producer. We now think of Vermont as forested, but in the 1700s it was all green, hence the name Vermont, French for "green mountain".



Vermont State Seal (Note wheat sheaves)

Machin's agreement specified, "on or before the first day of July next… Compleat the Works they are now Erecting at Rupert". Carlotto questions how far the Rupert mint got. It moved many times, the first move from their site on Mill Brook to Pawlet River perhaps because of insufficient water power from the brook.

Abel Buell was skilled at using hubs. He left for Europe and gave his equipment to his son William. William was only 14-year-old when he brought his father's hubs to Rupert. William's half-sister's husband owned land upon which the Rupert mint stood, hence his decision to move to Rupert when chased by murderous Indians

Bressett listed 38 Vermont die marriages. Of these 25 were die marriages from the mailed bust right (imitating George III) with a seated liberty reverse. These included 17 obverse dies (10 to 25). Both sides of these coins used device punches. They then touched up the dies. Many devices were poorly struck up maybe because the die sinker feared he may break the punches.

The cheapest planchets were from other lightweight coppers which they could buy at a discount. They did not need rolling or cutting. This was important because although New England had many blast furnaces, they were for iron not copper. They mined no copper in Vermont until the 1830s. Where did the copper come from? Minters could have used old brass canon, machinery, or other coppers as planchets.

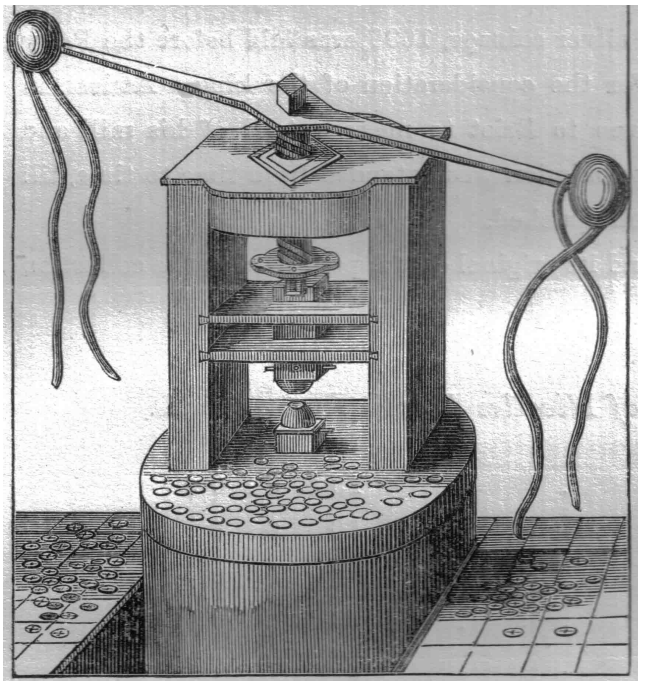
The Rupert mint moved many times:

- 1785 Started in Old Copper House, Mill Brook. A marker on Route 30 once showed the building's first location. Googlemaps on the next two pages show where this was.
- Moved to East bank of Pawlet River
- Moved to spot north of the house of John Harwood in Rupert on the east side of the main road
- Moved to spot on the west side of the main road
- Moved to William Phelps from one mile north of John Harwoods, on the edge of Pawlet till it was "blown down" in 1855.
- Presently the building is a corn storage building at Southwind Farm in Pawlet, part of Jeremy and Jenny Russo's sixth generation 300-acre farm.

The Pawlet River is now called the Mettawee River, running northwest between Dorset and Pawlet, parallel to present day Route 30. The first mint location on Mill Brook (now called Hagar Brook) just northeast of Route 30, in East Rupert is shown opposite. Route 30 lies in a valley between two parts of the Taconic mountain range, which likely led to the artistry on the landscape Vermont copper.

Carlotto says the landscape coppers show three mountains. I see two mountains on the left, a sun face on the right and another mountain to the right. If I was an engraver, I would not copy the exact terrain, but use artistic license. I think the engraver did this. The landscape coppers are one of my favorite designs. Look at the view of the mountains on the Google map street view that follows. They look similar to the coin!

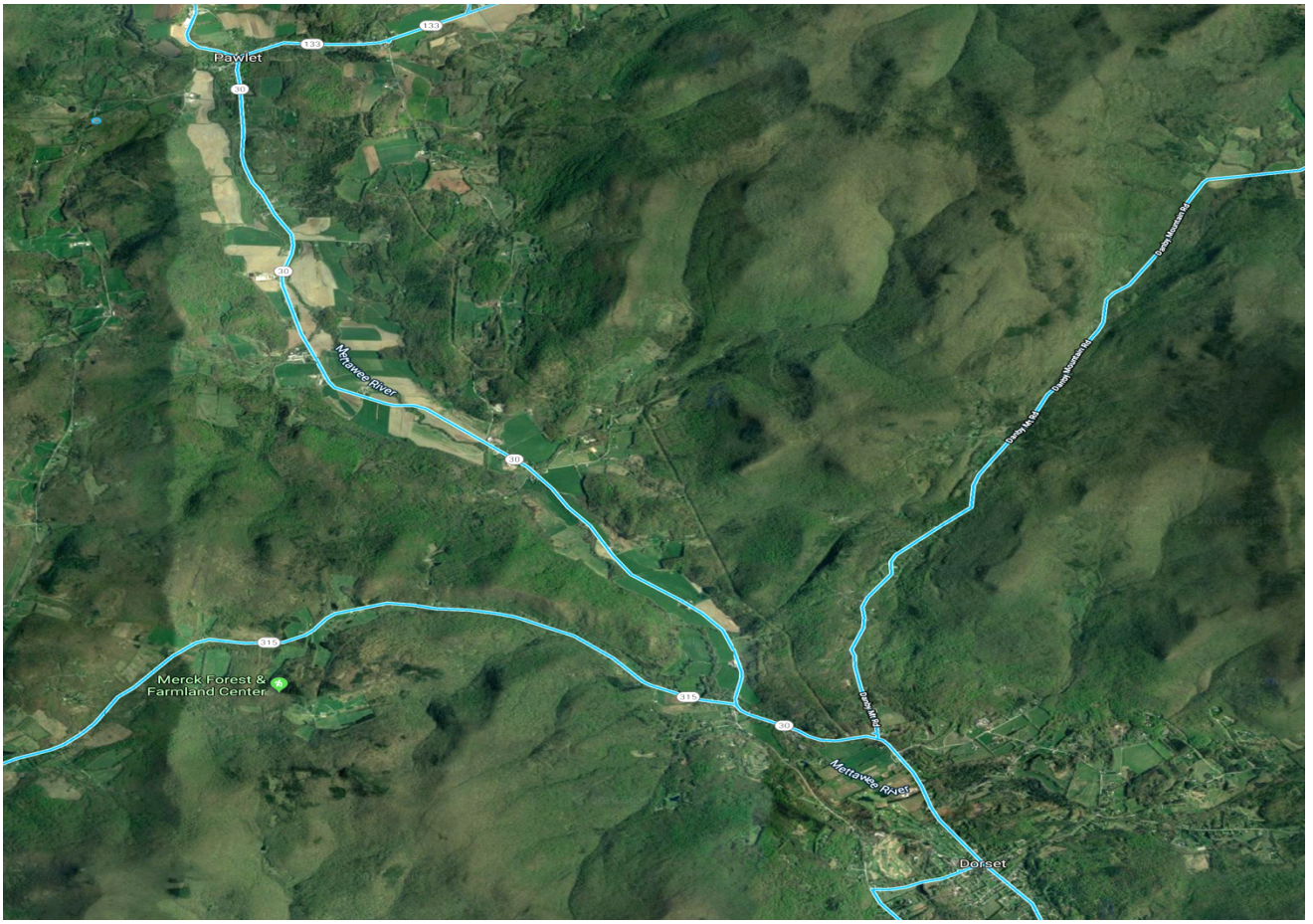
Crosby said that by 1875 the mint house already moved but the Mill Brook dam was still visible. Crosby quotes a letter from Julian Harmon, Reuben's grandson, who said the Mill was 50 feet from his father house, 1½ stories high, with unpainted clapboards. At the east end was the furnace to melt copper and roll bars. At the west end was a press. In the center was a planchet cutter.



Screw press with heavy balls and ropes attached

The press operated as a screw attached to heavy timbers above. One person inserted the planchet and two people pulled ropes to activate the screw press (heavier balls needed four men).

Having a furnace in the building did not mean Harmon smelted copper. Smelting was much more complex needing charcoal, a blast furnace, and much more expertise. He may have used the furnace to melt copper into bars for rolling. He may have bought copper plate and heated it up before rolling it. The rolling mill used water-power.



Route 30 and Pawlet (now Mettawee) river connecting Dorset and Pawlet.

Route 30 and Pawlet (now Mettawee) river connecting Dorset and Pawlet Courtesy Google maps.

Mint Site midway between Rizzon SAAB & Grassroots Solar, north side of Rte. 30. Courtesy Google maps.
This page shows street view mint site to left of Mill Brook (now Hagar Brook). All courtesy of Google maps.

Heating copper then quenching it softens it. Heating steel then quenching it hardens it. Softening (annealing) copper planchets prolongs the life of the steel dies used to strike them.

Tan and brown copper is purer and softer than dark "steely" copper.

A diversion: Carlotto studied how much metal a coin lost with wear. Not much! Carlotto thinks wear is not removal of metal so much as pushing metal around. He weighed large US cents in XF and Good condition and found an average weight loss of only 2.8%.

In July 1789 the copper price decreased. In New York State copper passed at a quarter of its previous value for 18 months. Sometimes storekeepers refused all coppers.

Q. David Bowers 2009
Bowers said authorities today doubt that Vermont ever struck Fugios, quoting Eric Newman who said William Buell brought punches but not the Fugio dies.

Bowers suggested people did not accept landscape coppers because they were familiar with King George's head on one side and seated liberty on the other. By switching to this in 1787 Vermont may have facilitated acceptance of their coins.

I have seen no authors comment on the Harmon — Machin partnership being 150 miles apart — a hostile five plus day ride on horseback. Even if you sailed up the Hudson River from Newburgh, there was still a two or more day horse ride over the mountains to get to Rupert.

Bowers comments on the difference between the Rupert mint and Machin's Mills coins:

	Rupert	Machin's
Planchet	Poor & dark w/ streaks & fissures	Good, brown, light
Dies	No mules Well engraved	Mules Poorly engraved
Striking	Usually careful	Often careless

Bowers quotes Crosby who said, "the coins were made by James F. Atlee… there is strong reason to believe that Atlee, who is said to have made the dies of all the coins struck at Newburgh (Machin's Mills) made dies for other of the Vermont coins". Bowers comments, "said to have" indicates supposition not fact and that several scholars suggest Atlee was a mechanic not a die engraver.

The English tradition was to alternate monarchs facing right and left. Thus, bust left (1786) imitated King George II; bust right (1787, 1788) imitated King George III.

Bowers gives this classification:

- **Landscape**
  Vermonts 5–12 grams
  Vermontis 6–8 grams
  Vermontensium
- **Portraits Rupert Mint** Engraved Coley
  Baby Head (only one to say Auctori Vermont not Vermon Auctori)
  MBL 1786 & 1787
  7.23–8.29 grams
- **Portraits Machin's Mills** Engraved Atlee
  MBR 1787 & 1788 some struck over 1781–2 counterfeit Irish coppers
  6.3–7.56 grams
- **Illogical Mules** Engraved Atlee Machin's Mills
  George II/Std Liberty
  VT Auctori/Britannia
  VT Auctori/Immune Columbia
  CT/Inde et Lib

What have I learnt from researching this subject?

- Hickcox and Dickeson knew a surprising amount about colonial American numismatics, even before the Civil War.
- There is a lot of supposition and theory which can so easily morph into fact
- Breen is too dogmatic. One must read him "cum granum salis."
- The truth grows closer but we are still ignorant of many things.
- Sources can be contradictory.
- Die linkage studies do not prove everything. Letter punches were commonly available, and different die sinkers may have used the same punch sets.

I have a simple classification, bearing in mind that production switched from Rupert to Newburgh in 1787, and there may have been some crossover:

Rupert: 1785 & 1786 Landscapes
1786 Baby Head
1786 MBL (imitates George II)
(there is a 1787 Bust Left, but extremely rare)

Newburgh: 1787 MBR (imitates George III)
1788 MBR
Illogical Mules

How can one collect?

- One landscape, one bust
- Landscape, Baby head, MBL, MBR
- Landscape (one or all three), Baby head, MBL, 1787 MBR, 1788 MBR, Britannia

References

Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American Coins*. Whitman Publishing, Atlanta , GA. 2009
Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins*. Doubleday, NY. 1988
Bressett, Kenneth E., *Vermont Copper Coinage*, in Studies on Money in Early America Chapter 11 pp 173 – 198,ANS, NY 1976
Carlotto, Tony. *The Copper Coins of Vermont.* Colonial Coin Collectors Club. Bookcrafters, Chelsea, MI. 1998.
Crosby, S., *The Early Coins of America*. Boston 1875
Hickcox, J. *An Historical Account of US Coinage.* Albany, New York. 1858
Richardson, John M., *The Copper Coins of Vermont.* Numismatist 1947, pp 331 – 354
Ryder, Hillyer, *The Colonial Coins of Vermont*, in The State Coinages of New England, New York, 1920
Trudgen, G., *Samuel Atlee's New York City Brewery and Mint*. 2018. Pages 27-58. Journal of Early American Numismatics,
Vlack, R.A., *Early American Coins*. Johnson City. New York 1965
Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*. 72nd Edition. Whitman Publishing LLC Pelham, AL 35124
By The original uploader was Rosser1954 at English Wikipedia.(Original text: Rosser1954 - Roger Griffith) - R. W. Cochran-Patrick, Records of the Coinage of Scotland., Public Domain, https://commons.wikimedia.org/w/index.php?curid=3783212
By SimtropolitanFlag_of_Vermont.svg:derivative work: Fry1989 (talk) 00:08, 6 October 2010 (UTC) - Rendering based on several historical specimens, including one from The Vermont Historical SocietyFlag_of_Vermont.svg, Public Domain, https://commons.wikimedia.org/w/index.php?curid=11705123

VERMONT VARIETIES

Mint	Engraver	Nickname	Year	Number Known	Wt	RR type	KB type	Notes
RUPERT	**LANDSCAPES**							
Rupert	Coley	**VERMONTS**	1785	400	5 - 12 grams	2	1-A	
Rupert	Coley	**VERMONTS**	1785	50	5 - 12 grams	3	2-B	
Rupert	Coley	**VERMONTIS**	1785	200	6 - 8 grams	4	3-C	
Rupert	Coley	**VERMONTIS**	1785	4	7.8 grams	5	none	Landscape, 6 cast specimens known.
Rupert	Coley	**VERMONTENSIUM**	1786	400	6-8 grams	6	4-D	7 trees
Rupert	Coley	**VERMONTENSIUM**		250	6-8 grams	7	5-E	8 trees
Rupert	Coley	**VERMONTENSIUM**		200	6-8 grams	8	6-E	9 trees
		PORTRAITS						All portraits say Vermon Auctori
Rupert	Coley	**BABY HEAD**	1786	250	7.2-8.3 grams	9	7-F	only portrait to say Auctori Vermon 4 wheat sheaves not cross on shield
Rupert	Coley using Buell hubs	**George II MBL**	1786	150	7.2-8.3 grams	10	8-G	Coley used Buell CT MBL hubs
Rupert	Coley using Buell hubs	**George II MBL**	1786	150	7.2-8.3 grams	11	9-H	Coley used Buell CT MBL hubs
Rupert	Coley using Buell hubs	**George II MBL**	1787	18	7.2-8.3 grams	15	9-I	Coley used Buell CT MBL hubs
MACHINS	**PORTRAITS**							
Machins	Atlee	**George III MBR**	1787	225 250 4 3	7.2-8.3 grams	12, 14, 32, 34	11-K, 10-K 12-K, 10-J	Made after July 1787 Machins /Harmon partnership. Some could have been struck Rupert, rest struck at Machins
Machins	Atlee	**George III MBR**	1788	3 to 800 depends on variety	6.3-7.56 grams	16-30 33, 35-38	Various	20 varieties use Atlee MBR bust punch, often on cft Irish 1/2 d. Includes **backward C, Et Lib Inde, Large head, dome (round) head, large head & ski break** varieties
		ILLOGICAL MULES						
Machins	Atlee	**Geo III/Inde et Lib**	1788	75		31	24-U	
Machins	Atlee	**VT Auct/Britannia**	1787	800	7.24-7.57 grams	13	17-V	Britannia not ind et lib on reverse
Machins	Atlee	**VT Auct/ Im Col**	1785	30		1	26-Z	
Machins	Atlee	**CT/Ind et lib**	1788	1 to 5		40	Vlack13-L	Really a Connnecticut coin
Machins	Atlee	**CT/Ind et lib**	1788	5		39	Miller 1-1	Really a Connnecticut coin

788

VERMONTS Landscape Copper, 1785. RR-2; 27mm, 8.27 Grams F15

2179

VERMONTIS Landscape Copper, 1785. RR-4; NGC VF 20 Ex: Eric Newman

639

VERMONTENSIUM Landscape Copper, 1786. RR-6; 27.5mm, 8.12 Grams F

791

"Baby Head" Vermont Bust Right, 1786. RR-9; 27.5mm, 7.54 Grams VG

1092

VERMONT BUST LEFT 1786. RR-10; 27.5MM, 7.05 GRAMS VF

1858

VERMONT BUST RIGHT 1787. RR-14; 26.5MM, 5.90 GRAMS VF+

426

VERMONT BUST RIGHT BRITANNIA REVERSE 1787. RR-13; 28.5MM, 8.04 GRAMS EF

404

VERMONT BUST RIGHT 1788. RR-16; 27MM, 7.04 GRAMS EF

774

VERMONT DOME OR ROUND HEAD (MBR) 1788. RR-27; 28MM, 7.78 GRAMS F+

CHAPTER TWENTY-FIVE
PROPOSED AND ACTUAL FEDERAL COINAGE

Continental Dollar

Bishop Richard Watson wrote in his Chemical Essays, Volume 4 in 1782:

"It is reported of James II that he melted down and coined all the brafs guns in Ireland, and afterwards proceeded to coin the pewter with his infcription — Melioris teffera fati. — The Congrefs in America had recourfe to the fame expedient: they coined feveral pieces of about an inch and a half in diameter, and of 240 grains in weight; on one fide of which was inscribed a circular ring near the edge — Continental Currency, 1776 —..."

John Hickcox described in 1858 a piece in white metal in his list of miscellaneous coinage labeled Continental Curency (sic) 1776. He said the journals of Congress made no mention of it. He wrote "Bishop Watson must be in error in supposing the American Congress issued it."

Wise! Watson was an FRS, but a professor of divinity, not science at Cambridge University, UK. Watson deceived in several areas:

- James II did not seize every brass gun, but church bells and some cannons.
- Most gun money is brass, not pewter
- Gun money has no edge inscription. Melioris tessera sati is nowhere on the coins (see below).
- Weights of the pewter pieces are 232–286 grains, close enough to 240 grains.
- There is no proof that the American Congress ever coined such pieces.

Half-crown gunmoney. Note Inscriptions #1004

Montroville Dickeson published a picture of the piece in 1859 with the spelling CURENCY. He described it using the spelling CURRENCY quoting two types and five varieties. He followed this with typical Victorian logorrhea: "By whomever designed, this coin or medal unburdened the patriotic genius of someone …Our forefathers neglected no opportunity which offered for stimulating the patriotism of the people …With all our admiration for this coin or medal, we have not been able to determine that it was designed for, or that it became to a great extent, a currency."

What a mouthful! But it says it all! A coin or a medal, but God knows which! And God knows whether someone intended it as currency!

Dickeson had copies of the piece made for the 1876 Centennial celebration, which included various mules. Thomas Elder, the New York dealer, made restrikes from the dies, as did Q. David Bowers in 1961–1962, according to Breen. Bashlow had transfer dies made from the Dickeson dies, lest they break, and made copies in goldine, and bronze.

Sylvester Crosby's *Early Coins of America* in 1875 had no further objective comments, except they existed in tin, brass and silver. He also pointed to one variety with beaded obverse rings.

The first Red Book in 1947 said, "The Continental Dollar is extremely rare, and it was supposed to have been engraved by someone whose initials were E.G. It was the first silver dollar struck for the United States. It was issued eleven years before the first regularly authorized coin, which was the Fugio Cent of 1787, with similar devices and legends. It was possibly struck in Birmingham, England, as were so many other coins of the period."

A surfeit of supposition has followed. In the 2020 Red Book they say, "The Continental Currency pieces were made to serve in lieu of a paper dollar, but the exact nature of their

monetary role is still unclear. They were the first silver dollar-sized coins ever proposed for the United States, and may have been intended as a substitute for the paper dollar … E.G. (undoubtedly Elisha Gallaudet) …Pewter pieces served as a dollar, substituting for paper currency of this design that was never issued."

Wow! Supposition morphs into facts! When numismatists know nothing about a piece, they love to make up stories!

If numismatists instead had studied the known facts they would have seen:

- Well over 100 in pewter (71-93% tin), over a dozen in brass (73-89% copper), and four known in silver struck over cut down (by 10%) Spanish milled dollars.
- Not coin turn, but random obverse /reverse orientation.
- No Congressional authorization.
- Design imitated fractional continental currency of the third emission February 17th, 1776 designed by Benjamin Franklin like the Fugio cent (opposite).
- The design did not imitate the first continental currency paper dollar issued May 10th, 1775 (below).
- E.G. FECIT is far too ostentatious for Congress to accept on a US coin.
- Many are misspelled with CURENCY and CURRENCEY rather than CURRENCY.

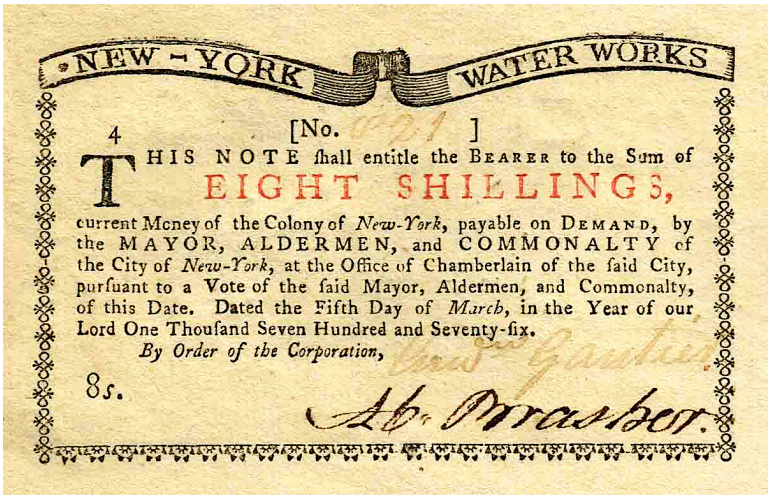
First US $1 bill continental currency #1552

Robert Vlack in his 1964 Early American Coins said, "there is worthy evidence to indicate that a dollar-size coin was also contemplated by the Continental Congress… It became logical to use a metal with a shiny and silver appearance which might have a stabilizing effect on the depreciating Continental paper currency… (silver and brass) can be treated as die trials… (E.G. could represent Elbridge Gerry, Ephraim Getz, and Elisha Gallaudet)."

Fractional continental currency, third issue. Same design on $1/6,1/3,1/2 & 2/3 #154

Walter Breen in his 1988 Encyclopedia of US and Colonial Coins quoted Eric Newman, who

suggested that unidentified intermediaries asked New Jersey engraver, Elisha Gallaudet, to engrave the Continental Dollar. Gallaudet did the ornamental cuts on the 1774–1776 New York Water Works notes:


NEW-YORK WATER WORKS

4 [No.]

THIS NOTE shall entitle the BEARER to the Sum of

EIGHT SHILLINGS,

current Money of the Colony of *New-York*, payable on DEMAND, by the MAYOR, ALDERMEN, and COMMONALTY of the City of *New-York*, at the Office of Chamberlain of the said City, pursuant to a Vote of the said Mayor, Aldermen, and Commonalty, of this Date. Dated the Fifth Day of *March*, in the Year of our Lord One Thousand Seven Hundred and Seventy-six.

By Order of the Corporation,

8*s*.

NY Water Works Gallaudet edge cuts. #2540

Newman said Gallaudet, a Huguenot, engraved the fractional continental currency notes. But he lived 90 miles away from Philadelphia, where they had plenty of talent. Breen said, "agents transmitted orders to the United Colonies' official note printers, Hall & Seller, to omit the $1 denomination from the July 22, 1776 and later plates… all assumed that enough bullion would arrive to make the coins an effective circulating medium (replacing paper)… Unfortunately, the French bullion did not arrive."

This is all pure conjecture!

The imagery on the obverse says, time flies; so, use your time well while the sun shines. The words, "mind your business", could also be a double entendre for "apply yourself to your business", or, "we don't want non-Patriots." Benjamin Franklin also designed the reverse link design representing the former colonies.

Breen lists varieties:
CURENCY- beaded state circles Brass
- partly beaded, copper, brass and tin
- unbeaded, silver and pewter
CURRENCY - no EG FECIT, Cu, brass, and pewter
- EG FECIT, silver, pewter
CURRENCEY - no ornament, pewter
- ornament after CURRENCEY
pewter

Bower's 2009 Colonial and Early American Coins said, "The same engraver cut all the dies for this series, as evidenced by the craftsmanship."

He quotes Michael Hodder, a colonial expert, working for the coin dealer Stack's. Hodder said, "It is almost certain that the first 1776 Continental dollars were struck in New York City in the summer of 1776, just before the British captured the city in September. The New York mint may not have had enough time to strike all (of them) before the British captured the city. The coiners probably packed what they could and smuggled themselves and whatever machinery they could conveniently carry out of the city just before it fell to the enemy. Since the coinage was official Continental Congress business…"

More pure conjecture! But it does make for good reading!

In 2014, Catherine Eagleton, found documents from the Sarah Sophia Banks collection in the British Museum. Banks pasted an advertisement (ca. 1783–1784) in her journal, which read:

Thefe American MEDALS at Six-Pence Each.

N.B. Reprefenting the Paper Currency of a Dollar, which goes for Four Shilling and Six-pence in that Country

EXPLANATION

The Thirteen Colonies united like a Chain, with the Names of each On the ringlets, the Words, "AMERICAN CONGRESS" within In the Center, "WE ARE ONE," and with Rays of the Sun fhooting to each Ringlet, as a Glory.

The Reverfe is the Sun going round its Orbit, with a Motto "FUGIO," fignifying, I fly: under the Dial is "MIND YOUR BUS-NESS." The Date, 1776, is the time they declared Independency.

The Letters E. G. FECIT, its maker's Name.

Sara Banks' Continental Dollar Advertisement

Above this Sarah Banks wrote, "Congress Dollar. 1776. Never current, struck on speculation in Europe, for sale in America."

Her contemporaneous book entry dwarfs the last two hundred years of conjectures!

Erik Goldstein, the Colonial Williamsburg Foundation numismatic curator, and numismatist David McCarthy have taken things further. The pieces have floriate edges, copied from old Spanish pillar dollars, a

technology unknown in America at the time. Medals seldom have security edges.

The engraver cut the letters by hand rather than using punches. Besides many misspellings, the sundials sometimes use IIX rather than VIII for 8 o'clock! Such misspellings suggest the engraver's first language was not English. NGC and PCGS show 54 specimens in EF 45 or less, and 162 specimens in AU or greater, suggesting they circulated little.

The metal content of the Continental dollar differs from that of contemporary British medals. Kleeberg says the Continental dollar was minted in New York City to pay recruiting bounties to enlisting soldiers. When the British took the city, they and their Hessians acquired many pristine Continental Dollars, which they kept as curiosities. More conjecture!

David McCarthy says Elias Gervais, a West German medalist, engraved the Continental Dollar. He hand-cut letters and did not use letter punches. This creates a new scenario. The American Congress did not authorize it. It was not money; it was a medal created by foreigners, with misspellings that English-speaking people would not have made.

The medal imitated the Spanish milled edge, making their own version of an "American milled dollar" for the new country, long before Americans got around to it. They stole the idea from Benjamin Franklin's fractional continental currency issued in 1776 and put it up for sale in Europe. Sarah Banks even kept one of the advertising fliers (page opposite)! It is the equivalent of fake million dollar bills. You can buy 100 of them for $12 on Amazon! This all sounds a lot more convincing than the last two hundred years of conjecture!

The Felicitas Britannia medal

Felcitas Britannia Medal Courtesy Heritage Auctions, HA.com

This medal (Betts 614) dated 1783 uses the same reverse (albeit a different die). In the Ford 1 sale in 2003, John Kraljevich favored an American designer; Michael Hodder favored an English designer. The MCA Advisory in October 2003 mentioned a clumsy rendition of St. Paul's Cathedral, London on the obverse, and the floriate edges like the Continental Dollar. The Heritage cataloguer of this Felicitas Britannia medal sold in 2015 did not make the connection. Elias Gervais may have engraved this too. Thus, a five to six figure piece has become a foreign fantasy piece rather than the first American dollar coin.

I thought about spending five to six figures on a low grade Continental Dollar before I found out it was just an old German medal. But I decided against it! I collected restrikes in the two figure range instead. They look much nicer! Bowers lists full details of Continental Dollar restrikes in his *Colonial and Early American Coins* book:

Dickeson copy dies 1876
Elder restrikes 1920s
Bowers restrikes 1961
Bashlow transfer die early 1960s
Gallery Mint Museum struck ~3,000 1992-2007

The pictures that follow show different dies. The coin that looks closest to the original is the cast lead piece! One wonders what this new information will do to the prices of this medal. Silver pieces have sold in the past for $1.5 million. Even uncirculated pewter specimens went for around $100,000. I suspect people will no longer be willing to pay such a price for a foreign fantasy piece. I am glad I did not indulge myself!

References

Bowers, Q. David, Whitman Encyclopedia of Colonial and Early American Coins. Whitman Publishing, Atlanta, GA. 2009.
Breen, W. Walter Breen's Complete Encyclopedia of US and Colonial Coins. Doubleday, NY. 1988.
Crosby, S., The Early Coins of America. Boston 1875.
Dickeson, M., American Numismatical Manual. Lippincott, Philadelphia, 1859.
Hickcox, J. An Historical Account of US Coinage. Albany, New York. 1858
Kleeberg, J.M., The Continental Dollar: British Medals or American Coins? Journal of Early American Numismatics. Vol 1. No.2 December 2018. ANS New York.
Rock, J. Point / Counterpoint: John Kleeberg's Continental Dollar. Journal of Early American Numismatics. Vol @., No. ! June 2019. ANS New York
Vlack, R.A., Early American Coins. Johnson City. New York 1965.
Yeoman, R.S., Ed. Bressett, K. Guide Book of United States Coins. 72nd Edition. Whitman Publishing LLC Pelham, AL 35124.
Watson, R. Chemical Essays. Volume 4, pp 135–136. 3rd Edition T. & J. Evans, London 1788.

492

BASHLOW GOLDINE STRUCK COPY OF CONTINENTAL DOLLAR 2.4MM THICK 38.1MM, 22.34 GRAMS UNC

535

SILVER STRUCK COPY OF CONTINENETAL $. W-15640; 2.7MM THICK, 38.1MM, 28.93 GRAMS UNC

1012

GALLERY MINT SILVER COPY OF CONTINENETAL DOLLAR, 2.4MM THICK, 38.5MM, 27.70 GRAMS UNC

1458

BECKER CAST LEAD COPY OF CONTINENETAL DOLLAR, 38MM, 23.33 GRAMS AU

Nova Constellatio patterns and coppers.

Eckfeldt and DuBois' *Manual of Gold and Silver Coins of All Nations,* published in 1842, mentioned the Nova Constellatio coppers. They listed Massachusetts, Connecticut, and Vermont coppers; the Nova Constellatio of thirteen stars; and another piece with thirteen rings (Fugio coppers). According to these authors, they coined the last two in Massachusetts.

John Hickcox listed the Nova Constellatio in his 1859 *Historical Account of American Coinage.* He listed it in the chronological section, but only describes the coin, saying nothing further about it.

Montroville Dickeson first described the Nova patterns (500 and 1,000 unit 1783 silver pieces) as differing from the Nova coppers (1783 and 1785 copper pieces). But he did not use the word patterns. The patterns have units listed on the reverse. The coppers have no units. The patterns belonged to Charles Thomson (1729–1824), Secretary to the First Congress in Philadelphia, and a friend of Benjamin Franklin. When Charles' nephew, John Thomson, died in 1827, they surfaced from a secret drawer of an old desk of Charles. The patterns passed to Rathmell Wilson, who sold them to Capt. John Haseltine in 1872. The pair ended up in the Garrett Collection.

Dickeson examined several hundred Nova coppers. He said they were, "undoubtedly gotten up in England... the U.S. prominent upon the reverse, does not give them a claim to have been of home manufacture… but by whom issued, has ever remained a mystery." Whenever a numismatist says "undoubtedly", it means no one knows! He listed three types and five varieties. He pointed out that the 1783 copper has LIBERTAS * JUSTITIA on the reverse, whereas the 1785 copper has LIBERTAS ET JUSTITIA (liberty and justice).

Sylvester Crosby, in his 1875 Early Coins of America, describes the 1,000 unit "Mark", and the 500 unit "Quint". Robert Morris, the US Superintendent of Finance from 1781 to 1784, reported a system of coinage devised by Assistant Superintendent of Finance, Gouverneur Morris. The two Morris's were unrelated. Gouverneur was a first name, not a title! The Superintendent of Finance position ended in 1784. A committee then took over until Washington appointed Alexander Hamilton as the first Secretary of the Treasury in 1789.

Gouverneur figured 1/1440th part of a Spanish milled dollar was a common divisor for all moneys of account and currencies in common use in the Confederation. He wanted a decimal system, with 1,000 units thus representing about two-thirds of a Spanish milled dollar.

Cast white metal copy of Mark. 30mm #1714

Robert Morris' diary contains entries describing Benjamin Dudley (a British die engraver, who engraved New Jerseys) as delivering several patterns and dies. Morris said it was "the first that has been struck as an American Coin". How's that for refuting any connection between America and the Continental dollar? Crosby also described a 5 unit piece. But he did not know of the 100 unit silver piece, which surfaced in a London pawn shop around 1882–1884.

Crosby listed the Nova coppers as most authors do — as separate from the patterns. But the designs were the same except the coppers had no units. Crosby quoted Bushnell's Numismatic Notes manuscript, "The Nova Constellatios were made in Birmingham, in England, and the dies were cut by Wyon, of that place. Over forty tons were issued from one die alone, and many more from another. They were manufactured by order of a gentleman of New York, who is believed to have been Gouverneur

Morris." Crosby listed three varieties of 1783, six of 1785, and one of 1786. Numismatists still use his numbering system.

Robert Vlack in his 1964 *Early American Coins,* listed the Mark (1,000 units), the Quint (500 units), and the Cent (100 units). He did not list the 5 unit piece. He said John Jacob Eckfeldt *(1733–1818), engraved the dies. Most today believe Benjamin Dudley engraved the dies. But the US Mint took another ten years to gestate. Congress dropped Morris' proposed monetary system. Instead they adopted Jefferson's decimal system. This comprised an eagle worth $10, a silver dollar, a silver dime, and a copper cent.

Vlack points out letter punch links between the Nova coppers, and other known Thomas Wyon coins. They muled reverses with Immune Columbia pieces and others imitated the reverses on Vermont landscape coppers.

Walter Breen in his encyclopedia pointed out that America's lack of silver made the Morris project a dead letter.

The name of the coins derives from the second Continental Congress. They passed a resolution in 1777 that the US flag be 13 stripes, and 13 stars, representing a new constellation (Nova Constellatio).

The unique 5 unit piece went missing and turned up in Paris in 1977. Three 100 unit pieces, two Quints, and one Mark exist.

The two Morris's joined as equal partners with William Constable and John Rucker in a New York and London, England trading business. They ordered Wyon and his mint in Birmingham, England, to produce Nova coppers. Wyon likely struck them in 1785 for circulation in New York. Breen estimates they struck up to 1.5 million coins (12 long tons). Many show wear attesting to extensive circulation. Minters also used them as planchets for Connecticut, New Jersey and Vermont coppers, as many were low weight, ranging from six to eight grams.

The 1786 Nova copper is a contemporary forgery, of inferior workmanship, perhaps made by Machin's Mills.

The main five types are:

		Crosby type
1783 – Pointed Rays –	Small US	2-B
–	Large US	1-A
– Blunt Rays		3-C
1785 – Pointed Rays		2-A, 3-B, 4-C 4-D, 5-E
– Blunt Rays		1-B

Constellatio Nova design

The Constellatio Nova design is found on:

- Constellatio Nova patterns 1783
- Constellatio Nova coppers 1783 and 1785
- Vermont landscape coppers 1785–1786
- Immune Columbia copper patterns 1785
- Washington success medals 1793
- They bear a superficial resemblance to the decad reverses of 1785.

* Jacob Reese Eckfeldt (1803–1872), who wrote *A Manual of Gold and Silver Coins*, was John Jacob's grandson.

References:

Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American Coins*. Whitman Publishing, Atlanta, GA. 2009.
Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins*. Doubleday, NY. 1988.
Bowers, Q.D. *Colonial and Early American coins*. Whitman Publishing, LLC, Atlanta, GA. 2009
Crosby, S., *The Early Coins of America*. Boston 1875.
Dickeson, M., *American Numismatical Manual*. Lippincott, Philadelphia, 1859.
Eckfeldt, J.R., DuBois, W.E., *A Manual of Gold and Silver Coins of All Nations, Struck Within the Past Century.* Philadelphia Assay Office, Philadelphia 1842.
Hickcox, J. *An Historical Account of US Coinage*. Albany, New York. 1858
Mossman, Philip L., *Money of the American Colonies and Confederation*. ANS, NY, NY. 1993
Nipper, Will, *In Yankee Doodle's Pocket*. Bowmanstone Press, Conway AR. 2008
Vlack, R.A., *Early American Coins*. Johnson City. New York 1965.
Yeoman, R.S., *Guide Book of United States Coins*, Whitman Publishing, Racine, WI. 1947
Yeoman, R.S., *Guide Book of United States Coins*, Whitman Publishing, Atlanta, GA. 2010

228

NOVA CONSTELLATIO 1783 POINTED RAYS SMALL US. Crosby 2-B; 27mm, 7,43 Grams F.

224

NOVA CONSTELLATIO 1783 POINTED RAYS LARGE US. Crosby 1-A; 28mm, 7,31 Grams F+.

700

NOVA CONSTELLATIO 1783 BLUNT RAYS. Crosby 3-C; 26mm PCGS VF 35.

740

NOVA CONSTELLATIO 1785 POINTED RAYS. CROSBY 3-B; 27MM, 7.96 GRAMS EF

691

NOVA CONSTELLATIO 1785 BLUNT RAYS. Crosby 1-B; 28mm, 7.79 Grams VF

Immunis Columbia, Confederatio and related coppers

What a confusing area! There is a boatload of coins, mostly in the five to six-figure range, that I have always found difficult to categorize.

What do they have in common? They are:

- scarce.
- often muled in different ways.
- some say Thomas Wyon, Birmingham, England engraved many of them. He also had his own mint.
- copper.
- mostly well circulated.
- some say patterns for a Confederation contract, but in that case why are they so well circulated?

Because of a lack of circulating coppers in 1785, private businesses made a profit striking coins for American circulation. England had not struck regal halfpence for a decade. Breen estimated Wyon's Birmingham Mint struck 1.5 million Constellatio coppers for American circulation in 1785. Robert and Gouverneur Morris's company ordered them from New York City. Machin's Mills started making counterfeit halfpence in 1787.

Thomas Jefferson in 1785 suggested an Indian trampling a crown with the legend INIMICA TYRANIS (hostile to tyrants). The Continental Congress suggested the name "decad" for the copper, valued at one hundredth of a Spanish dollar. They sketched a device with 13 stars in a circle with rays around with the legend CONFEDERATIO (Confederation).

The word "decad" means a set of ten. Does that mean Continental Congress knew of ten different circulating coins, or patterns? Or did Congress use the name incorrectly to suggest a decimal system of 100 coppers to the Spanish milled dollar?

The Confederatio copper shows the Goddess Diana with her attributes, a bow and quiver, at an altar, trampling the crown. On the altar is a liberty cap. Walter Mould worked with Wyon and brought impressions and dies from Wyon's mint with him to America in 1785.

Breen said Wyon made this group of dies and James Atlee the Immunis Columbia. Bowers says theories abound about who made them and where they were made, "but facts are scarce".

The dies dated 1785 and 1786 were:

- Immune Columbia *
- Immunis Columbia
- Inimica Tyranis America
- Inimica Tyranis Americana *
- Washington *
- Reverse of Nova Constellatio
- Confederatio reverse with 13 stars in circle with rays around ("decad") *
- New Jersey reverse *
- Eagles for reverse, several types *

***means this die is shown in the pictures ahead.**

The Red Book says the Confederatio related pieces had 12 dies, struck in 13 combinations. They list the Immunis Columbia piece in two different sections, one in the Confederatio related pieces, and another in Immune Columbia pieces. These are both in the Speculative issues section.

Bowers sensibly combines them into Immunis Columbia, Confederatio and related coppers. Until one is certain of a difference it is better to be a lumper than a splitter! The word Immune refers to America being immune from the problems of Europe.

One could invent many mules for these dies. A way of presenting them would be as dies, rather than as coins. In that case, I show six of the nine dies. The only original I have is the Immunis Columbia. The others are electrotypes.

References:

Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American coins*. Whitman Publishing, Atlanta, GA 2009
Breen, Walter H., *Complete Encyclopedia of U.S. and Colonial coins*. Doubleday Books, NY, NY 1988
Crosby, Sylvester S., *Early Coins of America*, Published by the Author, Boston, MA. 1875
Mossman, Philip L., *Money of the American Colonies and Confederation*. ANS, NY, NY. 1993
Nipper, Will, *In Yankee Doodle's Pocket*. Bowmanstone Press, Conway AR. 2008
Vlack, Robert A., Early American Coins. 2nd Edition. Windsor Research Publications, Inc., Johnson City, NY 1965 Racine, WI. 1947
Yeoman, R.S., *Guide Book of United States Coins*, Whitman Publishing,

803

IMMUNIS COLUMBIA 1787 ATLEE PATTERN. Breen-1137; 25mm PCGS EF 40

854

ELECTROTYPE OF INIMICA TYRAN/IS/ CONFEDRATIO BREEN 1124; 27.5M, 9.13 GRAMS UNC

857

WYON ELECTROTYPE 1786 WASHINGTON / SHIELD. MARIS 3-C; 28MM, 10.76 GRAMS EF

Fugio coppers

Eckfeldt and Dubois in their 1842 *Manual of Silver and Gold Coins* mention, "another piece with the same significant number of rings (13), conjoined".

John Hickcox in his 1858 *Historical Account of American Coinage* said: "Meanwhile great quantities of base copper were being circulated, which of course was highly injurious to trade and the commerce of the states. This bad currency consisted as well of the coppers manufactured by permission of the several states of the confederation, as of the great quantities daily imported. Congress (directed) no foreign copper coins should be current in the United States of America after September 1, 1787, (and that all State coinage pass at 2 ¼ pounds to a dollar)."

Congress then appointed James Jarvis to coin 300 tons of copper, specifying the devices and delivery dates. Jarvis may have counterfeited coins in a New York counterfeit ring in 1784. In 1786 he started the Connecticut "Company for Coining Coppers". On page 424 is a diagram entitled "Most Roads Lead to Machin's Mills", showing Jarvis' path. In 1858 Hickcox knew it was "very probable" that the New Haven Mint struck Fugios. He also knew "(it) was not at all improbable" that Abel Buell designed and cut the dies for the Fugio.

Hickcox tells the story mentioned in the Vermont chapter. Abel Buell left for Europe in 1788, giving his so421n, William, his business. While William Buell carried a flask of aqua fortis (nitric acid) some Native Americans accosted him. They thought it was rum and insisted on drinking it despite William's protestations. One died. They accused him of murder and chased him for weeks. Worried for his life, he fled to Vermont.

Montroville Dickeson in his 1859 *American Numismatical Manual*, described the Fugio saying some called it the "Franklin penny." Crosby called it the Rittenhouse Cent. Dickeson called it the "First United States Cent" authorized by Congress. He described two types and eight varieties. The coin had no denomination, today we call it a Fugio copper.

Sylvester Crosby in his 1875 *Early Coins of America*, quotes that in April 1787: "the board of treasury be authorized to contract for three hundred tons of copper coin of the federal standard, agreeably to the proportion of Mr. James Jarvis… the premium to be allowed to the United States for not less than fifteen percent… coined at the expense of the contractor (i.e. 15% royalty)."

In May 1787 the Board of Treasury, "resolved (they be) authorized to dispose of the public copper on hand, either by sale or contract for the coinage of the same… (i.e. they gave Jarvis copper)."

In July 1787 Congress detailed the devices on the coin, copied, like the Continental medal, from the fractional currency of the third emission of Continental Currency (below).

Fractional Continental Currency, third issue. Same design on 1/6, 1/3, ½, and 2/3 dollar #1542

Crosby lists the September 1788 Congressional records: "There are two contracts made by the board of treasury with James Jarvis, the one for coining three hundred tons… to be loaned to the United States, together with an additional quantity of forty-five tones, which he was to pay as a premium to the United States for the privilege of coining; no part of the contract hath been fulfilled… The other contract with said Jarvis is for the sale of… 71,174 pounds (of copper); this the said Jarvis has received at the stipulated price of eleven pence farthing, sterling per pound, which he contracted to pay in copper coin… before the last day of August 1788, now past; of which but a small part has been received."

This meant Congress sold Jarvis 32 tons of low price copper, he had to strike strike 300 tons of Fugios, but only made 4 tons.

Robert Vlack in his 1964 *Early American Coins* said he assumed Jarvis fulfilled his contracts, and that he had struck the coins, but not released them.

Walter Breen in his 1989 *Encyclopedia* told the following story: Congress required Jarvis to coin 345 tons of Fugios, and repay the government for loaned copper in Fugio coins. By 1787 James Jarvis became the majority stockholder of his Company for Coining Coppers in New Haven. On June 1st, 1787 he reorganized the mint as a Fugio mint (using the name Copper Mint Company, or Jarvis & Co.) His father-in-law Samuel Broome remained as superintendent.

Jarvis got the Fugio contract and copper from the head of the Board of Treasury, Col. William Duer, for a $10,000 bribe, which he never paid. This trumped Matthias Ogden's earlier application for the Fugio contract! Congress awarded the contract in October 1787. But it had a strict delivery schedule: 25 tons by December 1787, 25 tons by March 1788, 50 tons by August 1788, 100 tons by August 1789 and 100 tons by May 1790.

Jarvis sailed to Holland in October 1787, then to Britain to get financing. This was because Congress would only pay him with 20 year notes, which would be difficult to pay others with. He failed to get any financing.

He then visited Thomas Jefferson in Paris, who had seen Pierre Droz's 1786 minting exhibition. Droz was the Swiss minting and engraving genius. Boulton and Watt also visited the same exhibition, where they met with Droz. They heard of his improved press (segmented collar) and improved die multiplication (hubbing). It is not unlikely that Jefferson, who took an interest in minting technology, told Jarvis about all this.

Jarvis and his son Benjamin returned to Britain in January 1788 to persuade Boulton and Droz to help. Despite six months of pressuring, Boulton still refused to partner with Jarvis. He knew that Congress would only pay with 20 year notes. Further, Jarvis was already behind with his 25 ton delivery due December 1787. In June 1788 Jarvis wrote from London, asking for "a few pieces of the impression handsomely done & sent to New York directed to me 'James Jarvis, Care of Mr. John Blagge, Merchant New York'… in this case I wish them under seal." Broome used Blagge to ship coins to Philadelphia, and goods from Britain.

Jarvis also asked for a steam-powered press and six pairs of "counter-dies" from Boulton. Presumably the "impression" referred to counter-dies, which may have been hubs. Jarvis returned to New York arriving late August 1788. He expected to receive a steam press and six dies or hubs soon. More about this later under New Haven restrikes!

While away, his father-in-law, Samuel Broome (likely with Jarvis encouragement) used the 30 tons of federal copper to strike 3.5 million lightweight 1787 Connecticuts. From late 1787 through April 1788 he came to his senses and struck Fugios.

On May 1st, 1788 Broome delivered 560,000 Fugios to the US Treasurer in New York. But it was too little (4 tons not 50 tons), too late (May 1788 not December 1787). Congress did not know Duer accepted a bribe. They voided Jarvis' contract in September 1788 and sued him for the embezzled copper. Broome and Jarvis continued striking low weight 1787 Connecticuts from May until September 1788.

That same month Congress voided his contract, Jarvis sold his New Haven mint equipment to Machin's Mills. At Machin's Mills they made more 1787 and 1788 Draped Busts and MBR and 1788 MBL coppers.

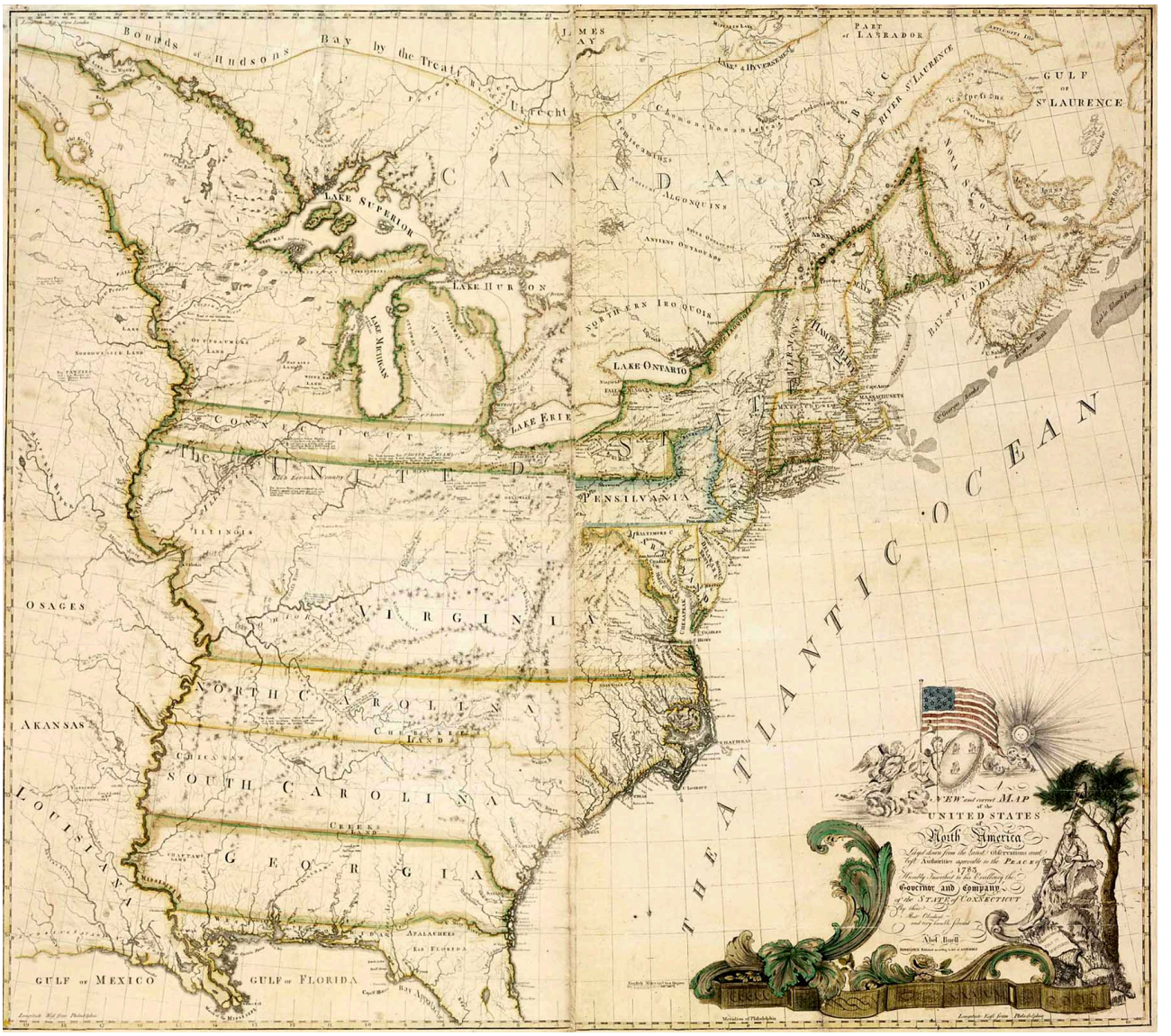
William Buell took his Fugio dies to Reuben Harmon's Rupert mint in late 1787. Vlack and others say Rupert struck Fugios. Others say the dies passed directly to Machin's Mills, who had already partnered with Harmon in June 1787. Some say Machin did not strike Fugios.

After September 1788, when Congress sued Jarvis, Abel Buell became cautious. In January 1789, he deeded his share of Jarvis' company to his son Benjamin, left the dies with another son William, and deeded his house to Jarvis. Sensing embezzlement charges, Abel sailed to Europe. Abel Buell left America in early 1789. A group of investors asked him to steal the secrets of British textile manufacturing.

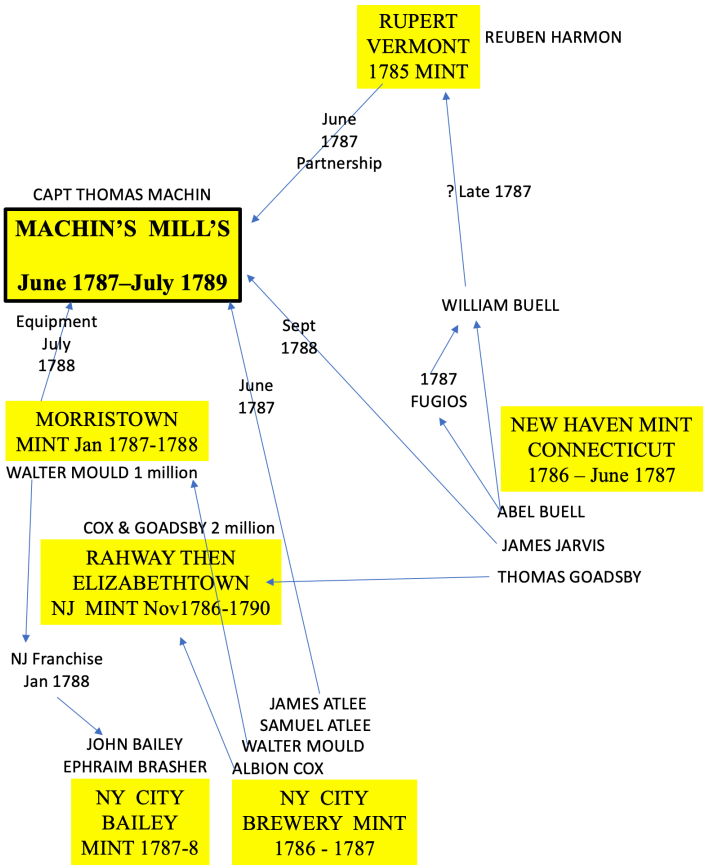
He returned two years later to the US, wealthy, establishing his own cotton mill and steel sword factory. His son, William, struck Connecticuts for a while then moved to Vermont after Indians chased him. William's half-sister's husband owned land upon which the Rupert mint stood, hence his decision to move to Rupert in late 1787.

Abel Buell (1742-1822) was a mechanical genius. Born in Connecticut, he apprenticed as a goldsmith to Ebenezer Chittenden, and married Chittenden's sister, Mary. Connecticut arrested him in 1763 for raising colonial currency from five shillings to five pounds. They cropped his ear and branded an F on his forehead. But they allowed his cropped ear to be sewn back on and pardoned him from life in prison because he was young and inventive.

Buell invented hubbing, or perhaps heard of it from Pierre Droz, via James Jarvis. The Philadelphia Mint later adopted the technology. He also invented a lapidary machine, and a coining machine that could strike 120 coins a minute. After negotiating a loan from Connecticut to establish the first US foundry to cast his own typeset, he failed and reneged on the loan. In 1775 he fled from New Haven to Florida for three years to avoid imprisonment. As a cartographer, he made the first American-made United States map, hand painted with watercolors in 1784. Only seven copies exist, sought eagerly by map collectors (cartophiles).



Abel Buell's "New and Corresct Map of United Staates". Courtesy of Library of Congress.



MOST ROADS LEAD TO MACHIN'S MILLS

But like so many gifted people, he had a blind spot for managing money. He died penniless in 1822 in the New Haven Almshouse. He had four wives, four boys and two girls.

Congress' original contract with Jarvis directed him to mint 345 tons of copper into 32 million Fugio coppers. He only made half a million! In 1789 Jarvis sailed with his father-in-law Samuel Broome to Paris, trying unsuccessfully to set up another mint. Congress was left holding the bag (400,000 Fugios), which they sold to a Broadway, New York merchant, Royal Flint. (No one knows what happened to the other 150,000 coins). Flint paid $1,323.33, representing a one-third deposit. But the copper panic of July 1789 wiped out the value of coppers. Both Flint and Col. Duer, ended up in prison.

Someone deposited a keg of 5,000 Fugios in the Bank of New York in 1788. In 1856 bank officers opened the keg and gave samples to favored customers and VIPs. Many uncirculated Fugios today issue from this hoard.

But the dies are different from original Fugio dies. Numismatic researcher Spilman believed Rust had transfer dies made at Scovill's Waterbury mint, from a "Club Rays prototype coin". But no known Fugios have such thin links. Breen believed Charles Ira Bushnell made hubs and struck the "New Haven Restrikes" in the 1860s. (Hubs are the mirror image of dies). Breen said, "we may take their origin at Scovill's mint as a certainty because of the workmanship" — a sure sign that he did not know!

Breen didactically listed Fugios as:

- New Haven
- Machin's Mills
- Scovill's mint ("New Haven Restrikes")

Bowers, in his 2009 *Colonial and Early American Coins,* shows Newman varieties by 23 numeric obverses, and alphabetic reverses A to Z, then CC, HH, JJ, KK, LL, MM, OO, PP, SS, WW, and ZZ.

Bowers lists these obverse types:

- Cross after date instead of cinquefoil
- FUCIO
- Club rays with rounded ends
- Club rays with convex ends
- 1 over horizontal 1
- Pointed rays

He lists these reverse types (the label is the central ring inside the circle of linked rings):

- American Congress on label written states on rings
- Raised rims on center label
- 8-pointed stars instead of cinquefoil on center label
- United above, States below, on label
- United left, States right, on label

This is all rather finicky for the non-collector. The main points of differentiation are:

- Pointed rays versus club rays either rounded or concave
- Cinquefoils or no cinquefoils
- 1 over horizontal 1
- STATES UNITED versus UNITED STATES on reverse label

New Haven Restrikes

In 1873 the American Journal of Numismatics described the "discovery" of Fugio dies to a Major Horatio N. Rust. Rust visited New Haven in 1860 and met a coin collector, presumably the teenage Wyllys Betts, who told him that Broome and Platt's safe found its way to J.E. Bassett, a hardware store on Chappel Street. Betts had a childhood illness, for which the physician prescribed outdoor exercise. Betts walked from store to store asking storekeepers for unusable change, becoming a numismatist. When Rust arrived late in the evening, he found the business still open. He found dies used as paperweights on the cashier's desk! He took them to Waterbury, Connecticut to have specimens struck from them.

To resume the story of the six dies or hubs, McDowell and Casey wrote a 117 page article in the Journal of Early American Numismatics. They trace the six pairs of dies and characterize each die. One path flows through Broome and Platt. A second path flows through John Pintard, the founder of the 1790 American Museum, who acquired a pair of dies for his museum, probably as a gift from James Jarvis. A third path is unexplained, but the extant dies number six pairs. A table below describes the different dies, and on the next page is a summary of the path taken by the six pairs of dies.

The Fugio copper was the first colonial American coin I bought. "Mind your business" meant "work hard" and also meant, "Congress keep your nose out of other people's business." Collecting varieties did not appeal to me. I wanted an uncirculated coin, but most uncirculated specimens have an unpleasant die clash showing the linked circles on the obverse. The New Haven Restrike looked much nicer to me.

References:

Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American coins*. Whitman Publishing, Atlanta, GA 2009

Breen, Walter H., *Complete Encyclopedia of U.S. and Colonial coins*. Doubleday Books, NY, NY 1988

Crosby, Sylvester S., *Early Coins of America*, Published by the Author, Boston, MA. 1875

McDowell, C.R., and Casey, J., *The Authentic Fugio Restrike Dies*. Vol 2, No. 2. December2019. JEAN. ANS NYC.

McDowell, C., *Abel Buell and the History of the Connecticut and Fugio Coppers*. C4 Publications, 2015

Mossman, Philip L., *From Crime to Punishment. Counterfeit and Debased Currencies in Colonial and Pre-Federal America*. ANS, New York. 2013

Mossman, Philip L., *Money of the American Colonies and Confederation*. ANS, NY, NY. 1993

Newman, E., *The Continental Currency Coinage and Varieties of the Fugio Cent*. Durst Publications, NY, 1982.

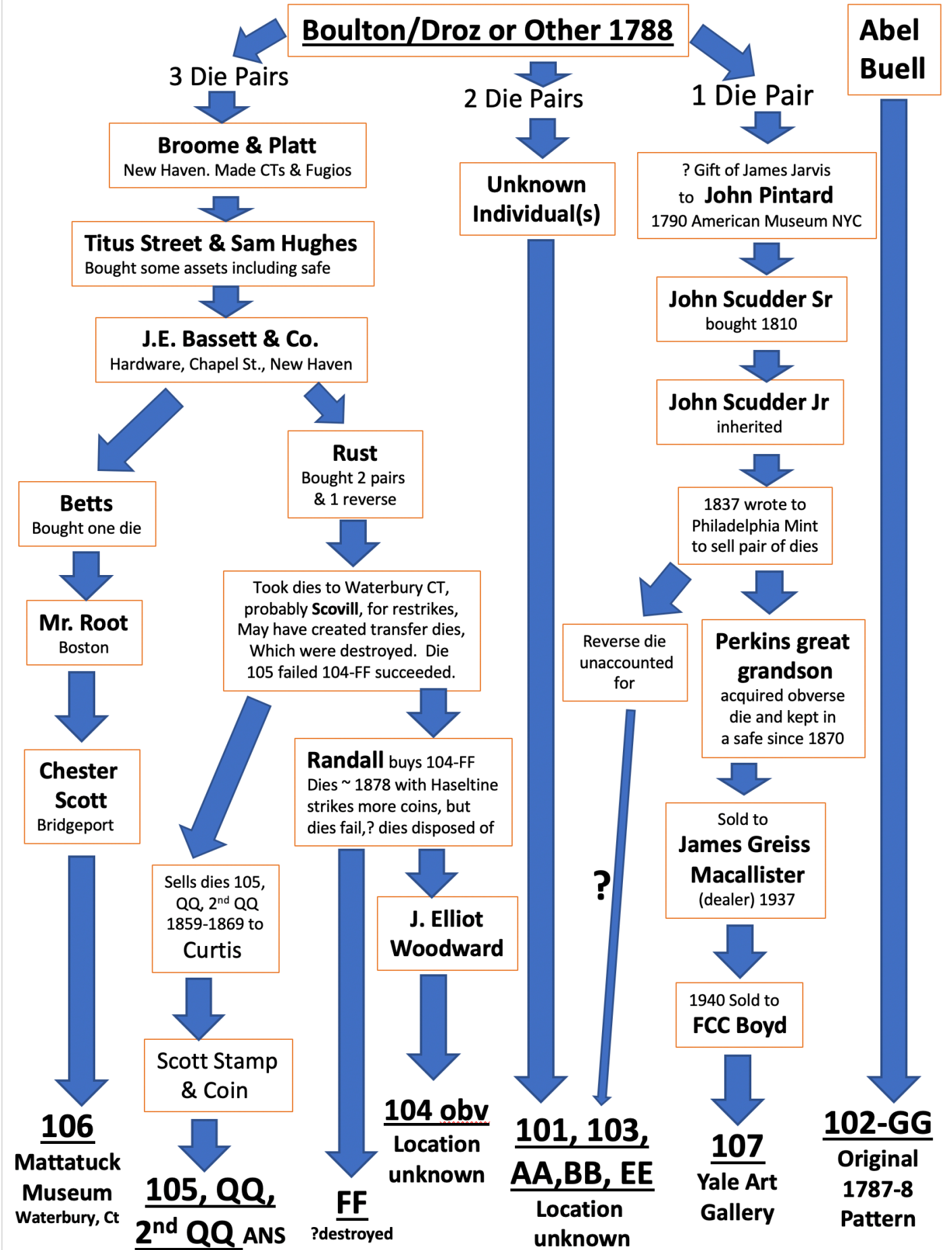
Nipper, Will, *In Yankee Doodle's Pocket*. Bowmanstone Press, Conway AR. 2008

Vlack, Robert A., *Early American Coins*. 2nd Edition. Windsor Research Publications, Inc., Johnson City, NY 1965

Yeoman, R.S., *Guide Book of United States Coins*, Whitman Publishing, Racine, WI. 2020

FUGIOS AND RESTRIKES

	Engraver	Obv	Description	Rev	Description
REGULAR	Regular Fugios Abel Buell	1 to 23	no scroll on sundial base, round sun, oval pellets in plinth	A to Z, KK-WW	wide larger rings irregular rim striations
TRIAL	1787-8 trial piece Abel Buell	1	no scroll on sundial base, round sun, oval pellets in plinth	CC	states spelt on rings, American Congress on center ring, WE ARE ONE in center
	Restrike ? Boulton/Droz	101	no lettering or date	AA	states spelt on rings, American Congress on center ring, no central eye
	Restrike ? Boulton/Droz	101	no lettering or date	BB	states spelt on rings, American Congress on center ring, central eye
	Restrike ? Boulton/Droz	101	no lettering or date	EE	stars inside rings, central ring with 13 points
RESTRIKES	Restrike ? Boulton/Droz	103	pointy chin sun, scroll on sundial base, circular not oval pellets on	EE	stars inside rings, central ring with 13 points
	The common New Haven restike variety	104	pointy chin sun, scroll on sundial base, circular not oval pellets on plinth, narrower tip gnomon	FF	Narrow rings which are smaller, concave regular denticles rather than irregularly incised rims of A to Z
	Restrike ? Boulton/Droz	105	pointy chin sun, scroll on sundial base, circular not oval pellets on plinth, narrower tip gnomon	QQ	Narrow rings which are smaller, concave regular denticles rather than irregularly incised rims of A to Z
TRIAL	1787-8 trial piece Abel Buell	102	no lettering or date	GG	states spelt on rings, American Congress on center ring, no central eye
DIES	Restrike ? Boulton/Droz	106	pointy chin sun, scroll on sundial base, circular not oval pellets on plinth, narrower tip gnomon	NONE	
ONLY NO KNOWN	Restrike ? Boulton/Droz	107	pointy chin sun, scroll on sundial base, circular not oval pellets on plinth, narrower tip gnomon	NONE	
COINS	Restrike ? Boulton/Droz	NONE		VV	identical to QQ, presumably hubbed



GENEALOGY OF "NEW HAVEN RESTRIKES"

15

FUGIO COPPER. NEWMAN 16-N; 28MM, 9.76 GRAMS ANACS VF 20

636

"NEW HAVEN RESTRIKE" FUGIO -1860-1877. NEWMAN 104-FF; 29.1MM, 8.82 GRAMS UNC

CHAPTER TWENTY-SIX
PATTERN COINS FOR THE NEW MINT

Robert Morris emigrated from England aged 13. He became Superintendent of Finance from 1781 to 1784 during the Confederation period. The first battle of the American Revolution was Lexington and Concord in 1775. The last was Yorktown in 1781. The same year Continental Congress (which had started in 1774) ratified the Articles of Confederation. This created a weak federal unicameral body, which lasted until a new constitution took effect in 1789.

The first attempt to start a Mint came in 1782, when Morris presented Mint proposals to the Continental Congress. Benjamin Dudley made Nova Constellatio patterns for Morris in 1783. Samuel Wheeler a metalsmith made rollers for the Mint after David Rittenhouse and others approved the designs. But everything failed. The Washington 1783 coppers were backdated and were not patterns. I will list these under Washingtonia.

The second attempt to start a Mint came in 1785. The Continental Congress had just resolved that the monetary unit of the United States should be one dollar. Thomas Jefferson promoted this decimal coinage with units of a mill, cent, dime, dollar and eagle. In 1786 the Congress passed the Board of Treasury's Ordinance to establish a Mint. The Assay Master and Master Coiner each required to post a bond of $10,000, which would later present problems. The Ordinance also prohibited passing any foreign copper. But they had insufficient bullion to coin or even to set up a mint. Without a mint and without authority their hands were tied. So, in 1787 Congress, still strapped for cash, outsourced Fugio coppers to Jarvis. That turned into a disaster.

Thus, the first US authorized patterns were the Nova Constellatio patterns. The first US authorized coin was the Fugio.

After meeting for four months, delegates to the Constitutional Convention in Philadelphia signed the new US Constitution in September 1787. This prohibited state currency and coinage. It also created a stronger federal government, with the power to tax. When ratified by two-thirds of the 13 states it became law. That happened in June 1788 when New Hampshire ratified the Constitution.

The most important Constitutional provisions were:

- Power to tax.
- Power to raise armed forces and declare war.
- Power to regulate commerce between states and abroad.
- The three branches of government: the legislature, the judiciary and the executive.
- Power to emit coin and currency, states could not.

Congress submitted the first ten amendments to the Constitution, called the Bill of Rights, for state ratification in September 1789. The states ratified them in December 1791. These included:

- Freedom of religion, speech, assembly, and press.
- Right to bear arms.
- No quartering i.e. civilians did not have to put up soldiers in their houses.
- No unreasonable searches without probable cause.
- Cannot prosecute for a serious crime without indictment by grand jury, and no double jeopardy.
- Right to trial by jury.
- No cruel or unusual punishment, or excessive fines or bail.
- States may take other powers.

The government had also produced Continental Currency paper money from 1775 to 1779, which depreciated rapidly. William Anderson in his 1983 book, *The Price of Liberty,* documented all the various IOU's, certificates and bonds used by the states and the federal government to get around their lack of cash. From 1784 to 1789 a committee ran the Finance department until Hamilton became the first Treasury Secretary.

Alexander Hamilton issued 6% bonds in 1790 to retire Continental Currency at $100 Continental Currency to $1 of 6% bonds. During the Confederation period the federal government could not tax, so could not pay off war debt. Some states assumed federal debts.

America's First Dollar. Continental Currency
#1552

By 1790 Alexander Hamilton estimated total State debts at $25 million. By Hamilton restructuring federal debts, Anderson said: "Both Dutch debts and the 1795 stock issued in exchange for the French debt were extinguished on time, final payments being made in 1809 and 1815 respectively."

But paper was a temporary expediency. Normal people used country pay, money of account or bullion based money. Only the new federal government could now emit coin or currency.

As Frank Stewart pointed out in his 1924 privately printed book, *History of the First United States Mint,* "The final establishment of the Mint… was due to three intellectual giants… viz., Robert Morris, Alexander Hamilton and Thomas Jefferson."

Alexander Hamilton reported to the House of Representatives in 1791, recommending Jefferson's decimal system. Congress passed the Mint Act of April 2, 1792. The ratio of gold to silver was 1 to 15. Eagles were 277 grains of 11/12 gold. Dollars were 416 grains of 1,485/1,664 silver. Cents contained 11 pennyweights of copper. Translated into modern metrology, this means:

- Eagle 17.95 grams 91.67% pure
- Dollar 26.96 grams 89.24% pure
- Cent 17.11 grams

An Act of January 14, 1793 would later change all these weights and purities. Official money of account became dollars not pounds, though it would take another ten years before shopkeepers and the public converted.

It was one thing to legislate a Mint, it was another thing to run one. They had to:

- Find personnel and artists.
- Find bullion and copper.
- Find money to pay for this.
- Find a location.
- Find designs.
- Design or buy machinery.

1791

When Congress were discussing a Mint Act in 1791, Boulton and Watt at the Soho Mint near Birmingham (the foremost mint in the world) proposed striking coins for the US.

A second group vying for business was W. and Alex Walker, merchants. They commissioned John Hancock to design a small and large eagle pattern 1791 cent, struck at Obadiah Westwood's Birmingham Mint, for Congressmen to see. The Walker's US agent was Thomas Ketland & Sons of Philadelphia. Authorities rightly list these as Washingtonia rather than US Mint patterns:

Large Eagle Washington Cent 1791. #482

Small Eagle Washington Cent 1791. #690

Jefferson opposed any outside contracts though he tried to induce Jean Pierre Droz, a Swiss engraver and mint expert, to fill a prime position in the US Mint. But Droz was not interested.

The Senate appointed Robert Morris in 1791 to head a committee to start a federal mint. Morris hired Peter Getz (1768–1804), a private, self-taught diesinker and silversmith to produce a pattern half dollar and cent.

Getz copied Hancock's 1791 cent design and had Harper strike 35–40 silver half dollar patterns dated 1792 (Breen 1347–1351) to give to senators in December 1791. Adam Eckfeldt later supervised striking 100–150 copper patterns weighing 17.11 grams (the 1792 legislated weight for a cent). They distributed these to Congressmen as samples:

Electrotype of Idler Copy of Getz piece. #539

April 1792

Washington told Congress he did not want his portrait on coins. America had won its independence and democracy. He did not want to return to such quasi-royal practices. Congress accordingly changed the bill to read, "a device emblematic of liberty." The final version of the Mint Act passed the Senate in April 1792. That same month Washington appointed David Rittenhouse, the foremost American scientist of his day, as Mint Director (Benjamin Franklin died in 1790).

July 1792

Coins may be a nuisance in change today, but then they were at the forefront of Federal endeavors. Washington agreed the government should buy Michael Shubert's vacant distillery on 37 and 39 North Seventh Street in Philadelphia (then the nation's capital). The government bought it in July for $4,266.67. A new three-story facility — the first federal building, and the tallest in Philadelphia — sprang up, outfitted by November 1792.

John McAllister in 1844 recorded a conversation he had with Adam Eckfeldt about the 1792 half dismes. Adam Eckfeldt worked as a coiner at the Mint from 1792 to 1839. He died in 1852. He said Washington supplied $100 worth of silver and had 2,000 struck for his personal use to hand out to friends as souvenirs. Mint contractor and saw-maker John Harper struck them in his basement.

Mint Director James Ross Snowden wrote that the $100 of silver Washington supplied was his own silver table service, likely from Martha. Snowden said the Mint struck the half dismes in October 1792. But he later contradicted himself and said John Harper struck them in his basement, before the Mint became operational.

However, recent research discovered Thomas Jefferson's personal memorandum book. Jefferson drew $100 in silver coin from the Bank of the United States on July 10th, 1792. The next day he delivered $75 to the mint to be coined. Two days later he picked up 1,500 half dismes. He left Philadelphia to travel with his daughter, Maria, 250 miles southwest to Monticello for the summer. Stage coaches, pulled by four horses, traveled about 5 miles an hour, and typically traveled 60 miles a day. The journey likely took at least five long days.

Jefferson's private memorandum book recorded transactions in Spanish dollars or English pounds, shillings, and pence. But starting July 10th 1792 he recorded expenditures in multiples of five cents from until October 5th. Presumably he then ran out of his half dismes and reverted to recording in Spanish and English money.

The Mint did not exist on July 10th. Jefferson did not record who struck the coins, though Harper was a Mint employee who had coining equipment in his premises at 6th and Cherry Street in Philadelphia. Around 250 half dismes exist today. In 2018 a superb specimen sold for $1,985,000. The half dismes weighed 1.13 grams conforming to the 1792 Mint Act.

Simon Stevinus (1548–1620) invented the decimal system and published *De Thiende* in 1585. His printer issued a French version *La Disme.* La Disme means the tenth. Most Americans pronounced it without the "s", and soon they dropped the s in the spelling. Russia was the first country to issue decimalized coinage under Czar Peter the Great in 1704.

Gallery Mint copy of 1792 half disme #898

The details of who engraved which dies is murky. Robert Birch, an English immigrant, engraved the dies for the large cent, and possibly the half disme, the dime and silver center cent. The Mint did not commission him as an officer, and only listed him as Bob, not Robert Birch. He died in September 1793, likely from the yellow fever epidemic.

Late 1792

Some think another Birch, William Russell Birch (1755–1834), a famous English miniaturist, engraved some 1792 patterns. But he did not immigrate to Philadelphia until 1794. He published Birch's Views of Philadelphia in 1800, a series of engravings. The Birch signed on the truncation likely represents Bob Birch.

Birch Cent Courtesy Heritage Auctions, HA.com

Joseph Wright (1756–1793) had a famous mother, Patience. She sculpted in clay and wax and sold her art in shops in New York, London and Paris. She spied for the Americans in London during the American Revolution, sending reports on British plans inside wax figures to Benjamin Franklin in France. Joseph also stayed with Franklin in France. In 1783 he made a plaster mold of Washington's face to create a bronze bust. He began working for the Mint after July 1792 and engraved a pattern 1792 quarter dollar. The die broke with the second copper striking. His engraving earned him a position at the mint, but he also died in the yellow fever epidemic in September 1793.

Gallery Mint copy of Wright's quarter dollar #942

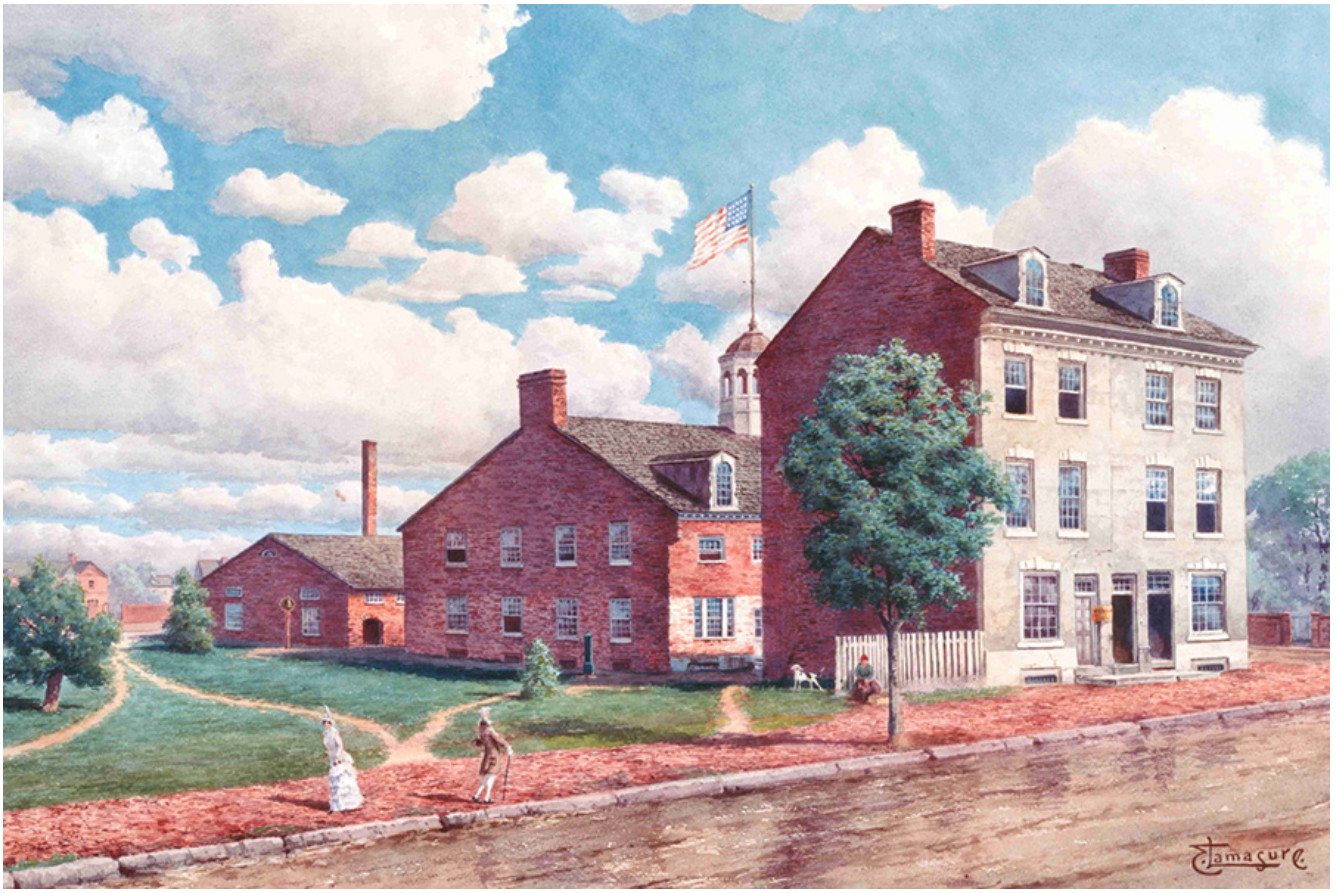
In late 1792 Henry Voigt struck dismes from a die by Adam Eckfeldt, copying Birch's half disme die, and using a Birch reverse die.

In December 1792 Jefferson sent Washington two silver center cents containing ¾ of a cent worth of silver, and ¼ cent worth of copper. The Mint also struck billon cents, but as the silver content was so low, no one could tell the difference visually. People could counterfeit them with copper. Breen commented that feeling favored a large copper cent instead. Pictures of the silver center cent follow at the end of this chapter.

George Washington was very much behind the Mint. He visited regularly, keeping in close touch with Rittenhouse, Jefferson and Hamilton about Mint affairs. On July 9th 1792 he wrote to Rittenhouse approving buying the land for the Mint, appointing Voigt as Coiner, and buying 15 tons of copper.

On July 31st, David Rittenhouse, Mint Director laid the foundation stone. Evans *History of the US Mint* says that Washington addressed Congress on November 6th, 1792, saying: "There has been a small beginning in the coinage of half-dimes". From this he deduced that the Mint must have opened in October.

Assayer, Albion Cox, and Chief Coiner Henry Voigt could not afford the required $10,000 surety bond. So, throughout 1793 the US Mint had no assayer. On March 3rd, 1794 Washington signed into law Congress's "Alteration of the Mint Act", which reduced the required bond to $1,000.



First US Mint 1792 from usmint.gov

Cox started assay work on April 4th, 1794. Numismatists will recall that the US Mint only produced copper, not silver or gold coins in 1793. This was why. Silver half dimes, half dollars and dollars started in 1794. Circulating half pistareen (worth 9–10 cents), and 2 reales pieces (worth 25 cents) were sufficient for commerce until they started minting dimes and quarters in 1796.

References:

Anderson, W., *The Price of Liberty.* University Press of Virginia. 1983.
Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American coins*. Whitman Publishing, Atlanta, GA 2009
Breen, Walter H., *Complete Encyclopedia of U.S. and Colonial coins*. Doubleday Books, NY, NY 1988
Crosby, Sylvester S., *Early Coins of America*, Published by the Author, Boston, MA. 1875
Evans, G. G., *Illustrated History of the United States Mint.* Philadelphia, 1886.M
Mossman, Philip L., *Money of the American Colonies and Confederation*. ANS, NY, NY. 1993
Nipper, Will, *In Yankee Doodle's Pocket*. Bowmanstone Press, Conway AR. 2008
Smith, P., Orosz, J.J., Augsburger, L., *A More Accurate History of the 1792 Half Disme.* The Numismatist. pp 35-42, August 2017
Stewart, F.H., History of the First United States Mint, Its People and its Operations. Privately printed 1924.
Vlack, Robert A., Early American Coins. 2nd Edition. Windsor Research Publications, Inc., Johnson City, NY 1965
Yeoman, R.S., *Guide Book of United States Coins*, Whitman Publishing, Racine, WI. 1947

NAMES AND SALARIES OF THE OFFICERS, CLERKS, AND WORKMEN EMPLOYED AT THE MINT THE 10th OCTOBER, 1795.

Henry Wm. DeSaussure, Director	@ 2,000	Drs. per	Ann.
Nicholas Way, Treasurer	1,200	"	"
Henry Voigt, Chief Coiner	1,500	"	"
Albion Cox, Assayer	1,500	"	"
Robert Scott, Engraver	1,200	"	"
David Ott, Melter and Refiner pro tem	1,200	"	"
Nathaniel Thomas, Clerk to the Treasurer	700	"	"
Isaac Hough, ditto to Director and Assayer	500	"	"
Lodewyk Sharp, ditto to Chief Coiner	500	"	"
John S. Gardiner, Assistant Engraver	936	"	"
Adam Eckfeldt, Die Forger and Turner	500	"	"

Workmen Employed in Chief Coiner's Department.

	Wages per day. Doll.	Cts.
John Schreiner, Chief Pressman	1	80
John Cope, Chief Adjuster	1	60
William Hayley, Roller	1	40
Nicholas Sinderling, Annealer	1	40
John Ward, Miller	1	20
Joseph Germon, Drawer	1	20
Lewis Laurenger, Brusher	1	20
Henry Voigt, Junr, Adjuster		88
Sarah Waldrake, ditto		50
Rachael Summers, ditto		50
Lewis Bitting, ditto	1	20
Lawrence Ford, ditto	1	20
Christopher Baum, Pressman	1	
John Keyser, ditto	1	
Frederick Bauck, ditto	1	
Barney Miers, Cleaner	1	
Martin Summers, Doorkeeper	1	
Adam Seyfert, Hostler	1	
John Bay, Boy		66

Workmen Employed at the Furnace of the Mint.

Peter LaChase, Melter	1	60
George Myers, ditto	1	50
Eberhart Klumback, ditto	1	40
Patrick Ryan, Filer	1	25
Valentine Flegler, Labourer	1	25
Andrew Brunet, ditto	1	
William Ryan, ditto	1	

Endorsed in two places, "Names and Salaries of the Officers, Clerks and Workmen employed in the Mint the 10th Oct. 1795."

Employees of Mint in 1795, from Evans book

690

SMALL EAGLE WASHINGTON CENT 1791. BREEN 1217; 30MM, 12.52 GRAMS VF

482

LARGE EAGLE WASHINGTON CENT 1791. BREEN 1206; 30MM, 12.67 GRAMS AU

846

1792 SILVER CENTER CENT GALLERY MINT COPY. 22 MM, 4.47 GRAMS UNC

1009

1792 BILLON #4 IN GALLERY MINT EDITION OF 100. 22 MM, 4.28 GRAMS UNC

1011

1792 COPPER #4 IN GALLERY MINT EDITION OF 100. 22 MM, 4.35 GRAMS UNC

1010

1792 No Plug Cent #4 in Gallery Mint Edition of 100. 22 mm, 4.35 Grams UNC

898

1792 HALF DISME GALLERY MINT COPY. 18.1 MM, 1.89 GRAMS UNC

897

1792 DISME GALLERY MINT COPY. 22.9 MM, 2.85 GRAMS UNC

942

1792 Joseph Wright Quarter Gallery Mint Copy. 28 mm, 6.88 Grams UNC

539

ELECTROTYPE OF IDLER COPY OF GETZ HALF DOLLAR. W-15870 33.8 MM, 17.01 GRAMS AU

CHAPTER TWENTY-SEVEN
WASHINGTONIA AND CONDER TOKENS

Washingtonia were one of the big collecting areas for coins and medals in the 1800s. The area is huge. Neil Musante wrote the modern masterpiece on Washingtonia entitled *Medallic Washington*, listing 1148 different pieces with Washington's image or name on the medal, token or coin. Here are the differences between coins, tokens, medalets, medals and medallions:

- Coins today are tokens for use as money struck by governments.
- Coins in yesteryear were often bullion struck by governments for use as money.
- Tokens are metallic (sometimes other hard materials) struck by non-governmental bodies which can be monetary, semi-monetary, or non-monetary.
- Medals, medalets, medallions and circular reliefs are large, usually round metallic object minted for awards, celebrations, commemorations or art.
- A medalet is a medal under 25 (–31) mm.
- A medal is 25–31mm to 80mm (1' to 3").
- A medallion is over 80mm (3").
- A circular relief is over 300mm (12").

WASHINGTONIA

Colonial collectors often collect Washingtonia, and Conder tokens. But where to start? The Red Book lists coin-sized Washingtonia, with Washington's portrait. They often have ONE CENT or HALFPENNY on, but not always. Many of these pieces are British made with Dalton and Hamer (D&H) numbers. More about that later. The Red Book lists Washingtonia chronologically, but I list them by maker, first English makers, then American makers:

PRESUMED ENGLISH MAKERS

1. **Hancock Cents**
   a. 1791 cents (chapter 9 dealt with)
      i. Large Eagle Cent D&H Mx 1049)
      ii. Small Eagle Cent (D&H Mx 1050)
   b. Ship halfpennies
      i. Large Eagle 1791 obverse plus Liverpool ship (D&H Lancs 116)
      ii. Small Eagle obverse (undated) Ship Halfpenny 1793 reverse (D&H Mx 1051)
   c. Roman Head Cent (too pricey) 1792
2. **Kempson and Wyons**
   a. Liberty and Security tokens, 1795 penny (D&H Mx 244), 1795 halfpenny (D&H Mx 1052)
   b. Grate tokens 1795 (D&H Mx 283, 284)
3. **Lutwyche and Hancock**
   North Wales Halfpenny (undated)
4. **Triumpho token backdated to 1783**
   ~ 1785-1795 maker probably Birmingham
5. **Backdated Birmingham Cents to 1783**
   a. Unity States ~ 1800
   b. Draped Bust 1815–1825
   c. Military Bust 1815–1825
   d. Double head 1860

AMERICAN MAKERS

1. **Jacob Perkins**
   a. Eagle with 13 star reverse 1792 (too pricey)
   b. Washington born Virginia 1792
   c. Washington President 1792 (too pricey)
   d. (Funeral medals 1800 [not colonial but often collected with this series])
2. **Passmore Success tokens** 1792–1796
3. **Getz half dollar** (chapter 9 dealt with)

This whole arrangement is horribly complicated, but seems more logical than listing the tokens with their dates in chronological order. The problem is manufacturers often backdated tokens. Notice that out of 19 listed tokens, only 16 are collectible. Seven have D&H numbers. Several date to after the federal US Mint, making them non-colonial. The North Wales copper was a British evasion copper. I group Conder tokens related to America with Washingtonia as many Washingtonia are Condor tokens.

Which of these should we include as colonial i.e. circulated in America as money before 1793, or were possible patterns?

- Hancock 1791 small and large eagle cents
- Perkins' as patterns
- Triumpho tokens (imported)

That's all! The rest were backdated, or circulated primarily in England as Conder tokens or evasion coppers. Passmore's tokens were likely medalets made to celebrate Washington's second inauguration.

CONDER TOKENS

England made regal halfpenny coppers from 1729 to 1754, and from 1770 to 1775 then stopped. The Industrial revolution was in full swing in England in the late 1700s. Population between 1750 and 1800 almost quadrupled. The crown did not do its job producing coppers for circulation. In 1787 the Parys Mine Company in Anglesey, North Wales, started striking tokens called Druid tokens to pay their mine workers.

Druid token, D&H Anglesey 287. #1506

With scant circulating coppers, token manufacturing exploded. By 1795 several thousand different tokens appeared. It expanded further when token collecting became a craze. Charles Pye published a book on these tokens in 1795. Authors in those days loved long titles! How's this one: "*A correct and complete representation of all the provincial copper coins, tokens of trade, and cards of address on copper, which were circulated as such between the years 1787 and 1801, when they were entirely superseded; a new coper coinage being at that time in circulation, issued by authority of government*."

James Conder (1761–1823) published another book in 1798, which took off. We now call these Conder tokens. They often referred to politics; great men, events, or buildings; or businesses used them as advertising cards. Today Dalton and Hamer is the standard reference. Each token has a unique number which prefixed by the county of issue. For example, Mx means Middlesex county. The largest number of tokens come from there.

Boulton established his Soho Mint in 1788 with eight steam driven coin presses, each striking 70-84 coins a minute. Boulton's mint became the largest producer of these tokens, often beautifully engraved and struck. He would later send over 20 million cent and half cent planchets to the Philadelphia Mint.

Token manufacturers soon realized they could make a small fortune striking restricted numbers of tokens for collectors. Why sell 100 halfpenny tokens for 30 pence, when you could sell one for a shilling to collectors! Today we call it restrictive marketing!

In 1797 the British Crown directed Boulton to strike copper coins of one and two ounces called "cartwheel pennies", having the full amount of bullion for the denomination. But the public disliked them because they were so large and heavy. In 1799 Boulton's Soho mint struck halfpence and farthings. This eased the small change shortage and by 1802 private token issues stopped. In 1817 the Crown made private tokens illegal.

I will now go over the individual Red Book Washingtonia starting with English makers.

ENGLISH WASHINGTONIA MAKERS

1. Hancock Cents

John Gregory Hancock, a talented die engraver, worked for John and Obadiah Westwood, who had a mint in Birmingham. The Walkers brothers in England ordered the coins struck and used the Ketland brothers of Philadelphia as their agents. The Ketland brothers imported flintlocks and gun parts made by their father in Birmingham. Hancock also engraved some Druid coppers.

John Westwood invented the cold rolling process to harden copper, for use on Royal Navy ships to prevent teredo worms drilling holes in the wood. The Parys Mining Company did the cold rolling. But the Crown seemed uninterested in coinage contracts. The Parys Company owners felt the Westwoods consorted with bank note and coin counterfeiters so passed their token business to Matthew Boulton. This crippled the Westwoods, who were Boulton's only real competitor.

I have already listed the **1791 small and large eagle cents** in the section on coins for the new US Mint (both listed as D&H pieces).

The ship halfpence are also D&H pieces. The 1791 piece is Large Eagle 1791 obverse paired with a Liverpool ship (D&H Lancs 116). The 1793 ship halfpenny is D&H Mx 1051:

1791 Liverpool Ship halfpenny #1620

1793 Ship Halfpenny. #479

Numismatists attribute both these halfpence to Hancock. The Westwood mint struck them both.

Roman Head Cent

1792 Roman Head Cent electrotype #855

The Roman Head cent is the final Hancock piece. Musante dates this circa 1792. Walter Breen figured around 12-15 specimens exist, with at least five in museums. Walter Breen knew of only one circulated specimen. He called this piece "Hancock's Revenge". Hancock satirized Washington as a Roman general, because Washington refused coinage with his head on, calling off any possible contract. Musante pointed out that if Hancock and the Westwoods had wanted to snub Washington, they would have made cents for circulation, not proof pieces for a dozen collectors. In 2019 a Roman Head sold for $87,000.

2. Kempson and Wyons

Although Boulton and the Westwoods were the largest token manufacturers in England in the 1790s, smaller concerns catered to smaller businesses. Two of these were Peter Kempson & Co. and William Lutwyche & Co. They both made restrikes, copies, counterfeits, mules and restrictively marketed rarities. English collectors could not get enough of these during the 1790s! Both subcontracted their die engraving: Kempson to Peter and Thomas Wyon, and Lutwyche to John Hancock.

Washington wrote a letter to the Mechanical Society of Baltimore. He expressed the thought the US should, "(make) their country… an asylum for the oppressed of every nation." Kempson & Co. hired Thomas Wyon to engrave the **Liberty and Security tokens circa 1795.**

1795 Liberty & Security half penny
D&H Mx 1052 #517

The preceding halfpenny token weighs 8.19 grams. My penny token weighs 19.62 grams. The April 1792 Mint Act specified 17.11 grams for a cent or 8.55 grams for a half cent. Congress reduced required weights to 13.48 and 6.74 grams in 1793. Regal halfpence at the time weighed 9.2 to 10.8 grams.

So, is this token a halfpenny or a half cent? It lists as a D&H Mx 1052 half penny token. However, Walter Breen suggested that Kempson speculated with a half cent and cent Liberty and Security token for a floundering US Mint that might fail. If so, we could call them a half cent and cent (both a little heavy). Musante points out such a project would have failed without an American sponsor. But they had no sponsor, making Breen's theory unlikely. Halfpence and pence exist with lettered edges saying, AN ASYLUM FOR THE OPPRESS'D OF ALL NATIONS. But, more commonly, the edges are plain, or read: "PAYABLE AT LONDON, or BIRMINGHAM."

Liberty & Security penny D&H Mx 244 #2488

Washington Grate Token D&H Mx 283. # 480

The grate token obverses have a bust punch identical to the Liberty and Security halfpenny by Thomas Wyon. Dalton and Hamer attribute the reverse engraving to Willets, struck by a Mr. Good. Musante attributes the dies to Wyon and says Kempson struck them. They made these tokens for Clark and Harris, a London dealer in stoves and fireplace grates. I do not know why Richard Yeoman decided in 1947 that he should list a London grate dealer token as American colonial money.

3. Lutwyche and Hancock

William Lutwyche's shop in Birmingham produced the North Wales halfpenny. Musante says the bust punch is almost the same as Hancock's 1791 cents, identifying it as his work. He classes these with evasion halfpence originating in Birmingham. The obverse legend mis-spells the word GEORGEIVS, and bears no denomination. Lou Jordan says the misspelling, shallow dies (to make it look circulated) and thin planchets bespeak a British evasion copper, not an American piece. Most have plain edges; some have PAYABLE IN LANCA LONDON OR BRISTOL.

North Wales Halfpenny. 2 stars. #446

.

4. Georgivs Triumpho

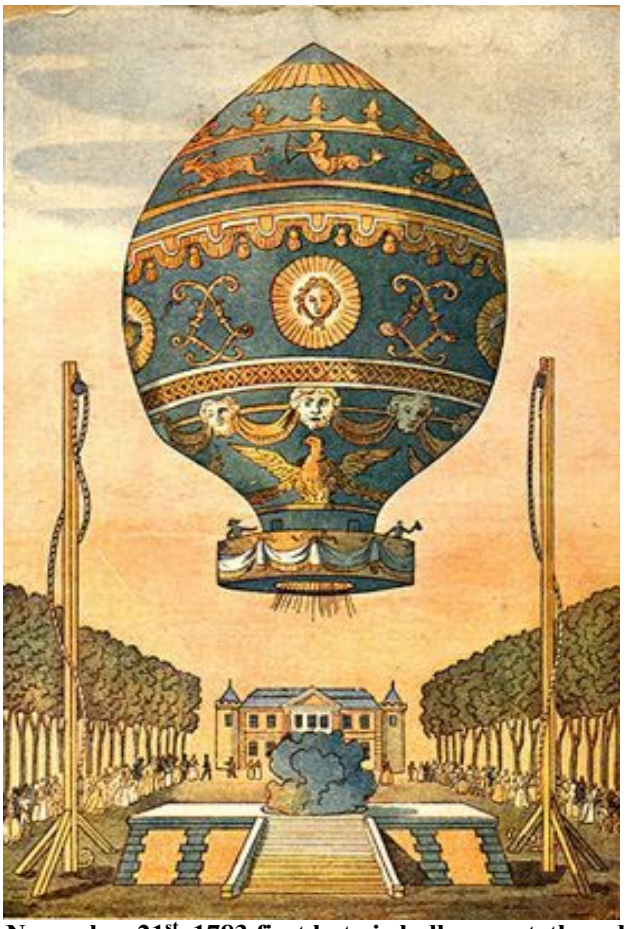
Although US defeated England in 1781, the American Revolution officially finished in 1783 with the Treaty of Paris. The origin and symbolism of this token have long been obscure. The obverse shows a laureate head of George III, with the legend GEORGIVS TRIUMPHO, meaning George, I triumph (celebrate or conquer). It does not mean triumphant George, which would be Georgius Victor, or Georgius Laetus. This is the only 1783 token to circulate during the confederation, all other 1783 tokens were backdated.

Georgius Triumpho token #593

George could represent George Washington or King George III. So, the obverse could mean Washington triumphed, King George triumphed (he did not) or could be an evasion legend with a play on words. Washington's likeness only became well known in the late 1780s.

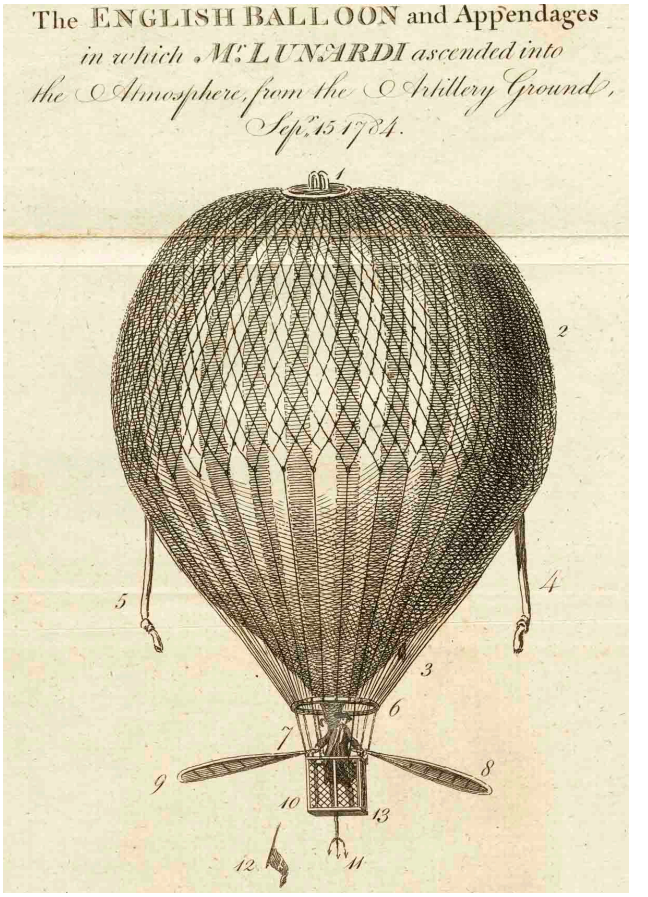
The reverse shows an allegory holding a laurel sprig and a pole. The pole could be a spear or trident, suggesting Britannia, or a pole with a liberty cap off the edge of the coin, suggesting liberty. The laurel represents victory. The allegory is standing or sitting behind a device variously interpreted as a gate, a weaving, a cage, or a hot air balloon basket. It has fleurs-de-lis on all four corners. Her sprig has 13 leaves, and the basket has 13 uprights.

The legend is VOCE POPOLI, Italian for People's voice. Did Wyon hire and Italian engraver? The Latin would be VOX POPULI meaning the voice of the people, or VOCE POPULI, meaning by the voice of the people. The year below is 1783, the year of Treaty of Paris. Two months after the signing, the Montgolfier brothers, prosperous paper manufacturers, launched the first manned untethered hot air balloon flight. Benjamin Franklin wrote, "We observed it lift off in the most majestic manner. When it reached around 250 feet in altitude, the intrepid voyagers lowered their hats to salute the spectators. We could not help felling a certain mixture of awe and admiration."



November 21st, 1783 first hot air balloon untethered with two people. Courtesy Smithsonian.

The problem is the 1783 balloon (above) did not have a square hot air balloon basket. The hot air entered the balloon from the ground. The gondola was a ring around the opening. But in 1784 Vincenzo Lunardi launched a hydrogen gas balloon in front of 200,000 spectators at London's Artillery Ground, flying 24 miles to Hertfordshire. This first English balloon flight depicts the square basket as we know it (opposite).



Lunardi hydrogen balloon with square style gondola.

If it is a balloon basket, the maker presumably backdated the piece as the basket is at least 1784 style. Louis Jordan quotes several New Jersey coppers struck over the Georgius Triumpho token dated 1787 and 1788. He said Matthias Ogden overstruck using backdated New Jersey dies up to 1790. Musante give the date as circa 1795. Mike Ringo has punch linked letters from the token to Wyon's Constellatio Nova tokens, suggesting issue around 1785 as an evasion piece.

Synthesizing these symbols suggests the maker expressed sympathy with American liberty being carried aloft in a balloon by the French, perhaps celebrating the Treaty of Paris. Most Americans and English could not read, so the legends would have been lost on them. But they saw an image of the King on the obverse and liberty in a balloon. The manufacturer made the piece during the balloon craze of the late 1780s.

Paul Bosco, a medal dealer, interprets the reverse showing Britannia imprisoned behind a 13-bar cage, with the help of the French. The coins first appeared in Georgia, perhaps because an English importer brought them to Savannah.

5. Backdated Birmingham pieces

Unity States coins show Washington's draped laureate bust left. Musante feels the engraver took this portrait from Pierre Tardieu's engraving of Madame DeBrehan's miniature done in 1789. The reverse imitates a federal cent.

Unity States backdated 1783 GW-104. #516

The Unity cent has striations across the coin perhaps to make it look more worn. Dickeson reported they may have struck these in France authorized by Benjamin Franklin. Alternatively, they may be sand casts by John Kean, a Philadelphia coin dealer (they do not look like sand casts to me). James King in *Numismatics-Witness to History* (IAPN Publication No.8) suggests they struck the coins from flans from crudely rolled sheets, with striations and file marks. Musante says numismatists have grouped these coins with the Washington and Independence coins, minted after 1815 (i.e. backdated) but he lists the Unity States Cent as circa 1800.

The Washington and Independence tokens show a small "I" in the toga folds on Washington's neck. This must be an engraver's signature, perhaps Thomas Wells Ingram, a token manufacturer who once worked with Boulton. The reverse shows seated liberty, similar to the English 1797 heavy twopence and penny reverse (engraved by Conrad Kuchler).

Washington & Independence Draped Bust. #2489

But the liberty does not sit on a Union Jack seat. Mark Fox (see references) suggests America imported 240,000 Washington and Independence military bust coins between 1815 and 1825 to mitigate the War of 1812 coin shortages. The Draped Bust is on the lower left, the Military Bust is below. The military bust reverse exergue shows the initials TWI, the issuer, and ES for Edward Savage, who painted a portrait of Washington for Harvard.

Washington & Independence Military Bust #790

Musante dates the double head Washington Cents to circa 1860 — not colonial at all — but still in the Red Book. The publishers and editors of the Red Book know it is easy to put a coin in the Red Book, but almost impossible to remove a coin from the Red Book. Just think of all the dealers and collectors who will write in saying they stocked up on various coins and have lost a fortune because the Red Book de-listed the coin! Also, to be fair, Yeoman, the Red Book editor, who included the coin in 1947 thought the coin was 1783, not 1860. But if the Red Book wants to direct collectors to Colonial coins, it misleads them to include backdated tokens.

Double Head. # 515

AMERICAN WASHINGTONIA MAKERS

1. Jacob Perkins pieces

The portrait of Washington on Hancock's pieces is almost the same as the ship halfpence, the small and large star 1791 cents, and the 13 star 1792 pieces. This led numismatists to assume

that Hancock engraved them all. But if you overlay tracings you can see there are subtle differences.

Newman's Unique gold piece. Courtesy of Heritage Auctions HA.com

The 13 star reverse token dated 1792 looks like the large eagle reverse except there are 13 stars in the place of ONE CENT. These are six figure coins in silver and copper, thus uncollectable for normal mortals!

that Jacob Perkins, whose descendants owned an obverse die from the Washington President token, also made the 13 star reverse die. He did this to create this unique gold piece to present to Washington. The edge reads UNITED STATES OF AMERICA.

Musante comments that the 13 star reverse coins did not follow Congressional mandates during 1792. He may have created them to show his ability, hoping for a position in the Mint. In that case why did he want to remain anonymous until July when he traveled to Philadelphia. He took samples and a letter of introduction to Dr. Benjamin Rush, a friend of Rittenhouse. Perkins is important as an American engraver, coiner and inventor.

Jacob's father fathered 12 children with his first wife, and seven with his second. He was a busy man! Eight children survived infancy.

Obsolete $2 New England Bank note using 1845 Perkins plate #1698

There was one specimen in gold, which belonged for many years to Eric Newman. He said it was his favorite coin. It had significant wear leading to the suspicion that someone may have used it as a pocket piece. Eric Newman said that someone was Washington. Musante says that someone was Perkins himself. The grading services graded it as XF45.

Nicholas Pike, a Newburyport neighbor of Jacob Perkins, wrote to George Washington. He asked him to accept a medal struck by "an ingenious & reputable Gentleman" who wanted to keep his identity quiet. John Kraljevich in 2010 suggested

Jacob Perkins (1766-1849) fathered nine children himself. Jacob apprenticed to the goldsmith Edward Davis. Joseph Callender charged an excessive 24 shilling per die (roughly 250 hours wages for a laborer) for Massachusetts cents and half cents. The state soon switched to Jacob Perkins, who charged only three shillings per die.

Perkins was an inventor, mechanical engineer, and physicist. He owned 21 American and 19 English patents. Aged 24, he invented a machine to make nails in a single operation. Before that each nail was hand made. Nails were so valuable

that people burnt down disused buildings to harvest the nails to reuse.
Perkins also made important innovations in printing technology. He started a printing business, and engraved plates for bank notes, patenting a stereotype steel plate to prevent counterfeiting (see page opposite).

Failing to attract American interest, Perkins won £20,000 in England for "unforgeable" banknotes. He moved there and set up with Charles Heath, a British engraver, setting up a banknote printing factory in 1819. He printed the penny black, the first adhesive postal stamp in the world.

Perkins' inventions included:

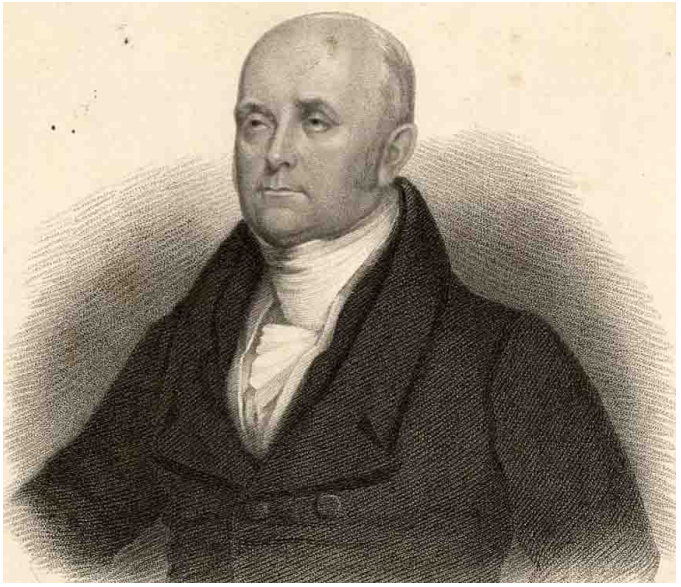
- a high pressure steam boiler,
- a contra-flow heat exchanger,
- the steam gun (a machine gun powered by steam firing 1,000 musket balls a minute),
- a vapor-compression refrigerator, people call him the father of the refrigerator,
- an improved paddle wheel,
- a counter current water-tube boiler,
- a method of ventilating ship holds,
- a bathometer to measure the depth of the sea by its pressure.

His son Angier joined him in business in England in 1827. In 1832 Jacob set up the National Gallery of Practical Science in London. Perkins also engraved the **Washington President and Washington Born Virginia with legend reverse.** He used the same Washington President die for the 13 star reverse. His second die — Washington born Virginia — is commoner.

Perkins' Washington Born Virginia token. #2926

Albert Collis bought the Washington Born Virginia obverse die from the Perkins family. He made a transfer die (now in the American Numismatic Association), to avoid breaking the original. From this he made one restrike in platinum, seven in gold, 22 in silver, and 5,019 in copper.

Albert Collis' Washington born Virginia restrike #579



Jacob Perkins

2. ? Passmore's Success Token.
Starting life as a tinsmith, Thomas Passmore graduated to merchandising in Philadelphia. He became wealthy and owned a brig, *Minerva*. A self-made man, he preferred the company of ordinary people to those of privilege. His preference would later validate itself.

He insured his brig with Andrew Pettit and Andrew Bayard. Andrew Pettit was the son-in-law of the Governor of Pennsylvania, Thomas McKean. Andrew Bayard was McKean's brother-in-law.

Passmore's brig sank in 1801. Pettit and Bayard refused to pay up. Passmore went to court and got a judgement against them. But Pettit and Bayard appealed after the deadline had passed.

Because they were the Governor's family, the court agreed to hear the appeal. Incensed, Passmore slandered Pettit and Bayard, only to find the Pennsylvania Supreme Court threw him in jail for 30 days in 1803!

Still no insurance payment! Passmore petitioned the Pennsylvania assembly to impeach the judges who found him in contempt of court. Thirteen radical Democratic Republicans (who disliked the lingering aristocrats) voted to impeach, against 11 moderates in 1805. Passmore stirred things up things against the Pennsylvania aristocracy!

Passmore advertised 3,000 Washington medals for sale in the *General Aurora Advertiser* in Philadelphia in 1801. Whether Passmore made these or whether he bought surplus inventory from the Ketlands (US agents for Hancock's 1791 small and large eagle cents, and ship halfpence) we do not know. Musante points out the 15 stars on the reverse suggest someone struck the medalet after Kentucky became the fifteenth state in 1792. This would have been ready for Washington's second inauguration in 1793. Tennessee became the sixteenth state admitted to the Union in 1796. Using the reverse all-seeing eye device would certainly correlate with his Masonic background. Passmore was a Mason. The device imitates the Constellatio Nova and Vermont landscape reverses.

However, the medalets bear a striking resemblance to German spiel markes.* Musante lists the large medalets (25.4mm) as 1793, and the small ones (19.4mm) as 1860, consistent with a spiel marke.

If Passmore made these, why did he not strike them in tin rather than brass? For the second inauguration fresh tin would have looked nicer, sell better, and Passmore was a tinsmith.

These do not look like coins. Both the large and small ones look like spielmarkes. But, since Richard Yeoman listed them in the 1947 Red Book on American coins, numismatists continue to list them and collect them as coins. Modern Red Books list them as medals.

Large Washington Success medalet #634

*Spiel means game, and marke means money in German. Nuremberg became a large manufacturing center for rechenmeister tokens, also called jetons. Rechenmeisters (street accountants) used these for arithmetic using roman numerals. Even literate people could not do arithmetic until the 1500s and 1600s. When Arabic numerals (also called Arabic cypher) appeared in the late 1400s, rechenmeisters gradually died out as literate people could now do arithmetic by themselves. By 1550s, Nuremberg had a monopoly in jeton manufacture. In the 1800s, Nuremberg had switched to making game counters instead of jetons. By the early 1900s, plastic game counters replaced metallic ones.

References

Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American coins*. Whitman Publishing, Atlanta, GA 2009

Breen, Walter H., *Complete Encyclopedia of U.S. and Colonial coins*. Doubleday Books, NY, NY 1988

Conder, J., *An arrangement of Provincial Coins, tokens, and medalets issued in Great Britain, Ireland, and the colonies, within the last twenty years, from the farthing to the penny size*. Ipswich, England. 1798

Crosby, Sylvester S., *Early Coins of America*, Published by the Author, Boston, MA. 1875

Dalton, R., and Hamer, S., *The Provincial Token-Coinage of the 18th Century Illustrated.* Alan Davisson reprint, Cold Spring, MN 1990.

Fox, M., *The Washington and Independence Tokens*. The Numismatist. July 2012

Mossman, Philip L., *Money of the American Colonies and Confederation*. ANS, NY, NY. 1993

Musante, N., *Medallic Washington* Spink & Son Ltd., London. 2016

Nipper, Will, *In Yankee Doodle's Pocket*. Bowmanstone Press, Conway AR. 2008

Pye, C., *A correct and complete representation of all the provincial copper coins, tokens of trad, and cards of address on copper, which were circulated as such between the years 1787 and 1801, when they were entirely superseded; a new coper coinage being at that time in circulation, issued by authority of government.* Matthew Young, Birmingham. 1795

Vlack, Robert A., Early American Coins. 2nd Edition. Windsor Research Publications, Inc., Johnson City, NY 1965

Yeoman, R.S., *Guide Book of United States Coins*, Whitman Publishing, Racine, WI. 1947

https://coins.ha.com/itm/colonials/1792-10-washington-gold-eagle-pattern-musante-gw-31-a-unique-xf45-ngc-pcgs-716-/a/1278-5010.s?ic4=OtherResults-SampleItem-Thumbnail-022817&tab=ArchiveSearchResults-012417

https://en.wikipedia.org/wiki/Jacob_Perkins#/media/File:Portrait_of_Jacob_Perkins_Esqr_(4672666).jpg

Hot air balloon Image credit: 2001 National Air and Space Museum, Smithsonian Institution (SI Neg. No. 93-2342)

https://en.wikipedia.org/wiki/Vincenzo_Lunardi#/media/File:The_English_Balloon_and_Appendages_b1035339_016a_tif_fn106z672.tiff

coins.nd.edu

1620

1791 Hancock Liverpool Halfpenny. Breen 1223; D&H Lancs 116; 27mm, ? Wt PCGS EF

479

1793 Hancock Washington Ship Halfpenny. Breen 1225; D&H Mx 1051; 30mm, 10.42 Grams VF

855

Electrotype of Hancock's Roman Head Washington; Breen 1249; 28.5mm, 14.35 Grams AU

517

1795 Washington Liberty & Security Halfpenny. Breen 1260; D&H Mx 1051, 1052; 29mm, 8.19 Grams EF

2488

UNDATED WASHINGTON LIBERTY & SECURITY PENNY, ASYLUM EDGE. D&H MX 243; 33MM, ? WT PCGS MS 62

480

1795 Washington Grate Token Halfpenny. Planchet Cutter Marks. Breen 1271; D&H Mx 283; 28mm, 9.22 Grams AU

446

Undated Washington North Wales Halfpenny. Breen 1294; D&H Mx 283; 27mm, 5.58 Grams EF

593

1783 Georgivs Triumpho Token. Breen 1184; 28.5mm, 8.04 Grams EF

516

1783 Washington Unity States Cent. Breen 1188; 28mm, 8.04 Grams VF+

2489

1783 Washington & Independence Draped Bust. Breen 1193; 28mm PCGS PF 66 RB

790

1783 Washington & Independence Large Military Bust. Breen 1203; 28mm, 7.04 Grams EF Gilt

515

UNDATED DOUBLE HEADED WASHINGTON CENT. BREEN 1204; 27.3MM, 8.08 GRAMS EF

634

Washington Large Success Token. Breen 1282; 25mm, 4.23 Grams AU

CONDER TOKENS RELATING TO AMERICA

As a number of Washingtonia are Conder Tokens, it is convenient to lump colonial related Conder tokens with Washingtonia. I have so far listed seven Conder tokens:

1. Hancock Cents
- a. 1791 cents (chapter 9 dealt with)
  - i. Large Eagle Cent D&H Mx 1049)
  - ii. Small Eagle Cent (D&H Mx 1050)
- b. Ship halfpennies
  - i. Large Eagle 1791 obverse plus Liverpool ship (D&H Lancs 116)
  - ii. Small Eagle obverse (undated 1793 rev) Halfpenny ship (D&H Mx 1051)

2. Kempson and Wyons
- a. Liberty and Security tokens
  - i. 1795 penny (D&H Mx 244)
  - ii. 1795 halfpenny (D&H Mx 1052)
- b. Grate tokens 1795 (D&H Mx 283, 284)

I will now deal with:

Other Conder Tokens relating to America
- a. 1787 Auctori Plebis token
- b. 1792–1795 Kentucky Token
- c. 1794 Franklin Press token
- d. 1794–1795 Talbot Alum & Lee mules
- e. 1794–1797 Thomas Paine Tokens
- f. 1798 New York Theater Token

The first Condor token is the 1787 Druid token described earlier. Any Condor token could have passed as good coper in America. But I know of no one who collects every Condor token because they believe they all circulated in America. D&H refers to Dalton and Hamer, the major work listing Condor tokens

1787 Auctori Plebis Token

1787 Auctori Plebis Token #522

The reverse is the same as the D&H Norfolk 20 and 21, and the D&H Hampshire 9 and 10. However, the legend changed from HALFPENNY to INDEP ET LIBER, and the dates from 1793 and 1794 to 1787 for the Auctori Plebis token.

The reverse shows Britannia seated on a box. Her left arm rests on an anchor, bespeaking England's naval prowess. Her right arm rests on a globe with a crowned English lion below, bespeaking England's control of the world. But changing the legend from Halfpenny to Independence and Liberty suggests manufacture for American circulation. It is a popular legend on American colonial coins, also used on Vermont and Connecticut coppers.

The D&H Norfolk 20 and 21 obverse advertises R. Campin, a haberdasher on Goat Lane in Norwich. It shows a stocking, a glove and a crossed knife and fork, showing he sold clothing and hardware. A haberdasher in North America means a dealer in men's clothing, but in England today means sewing equipment like buttons, pins, needles, etc. The D&H Hampshire 9 and 10 is paired with a ship with the legend EMSWORTH, and an edge lettering PAYABLE AT THE WAREHOUSE OF IOHN STRIDE.

CT 1787 DBL obverse **Auctori Plebis Obverse**

The Auctori Plebis obverse looks very similar to Miller 33 series 1787 draped bust left (George II) Connecticut coppers. However, the legend changes from AUCTORI CONNEC to AUCTORI PLEBIS (by authority of the people). See above. Other British evasion halfpence also used the Auctori Plebis reverse. Voce Populi is another popular legend used on the Georgius Triumpho token and the Voce Populi series of 1760 Irish coppers.

Some have ascribed the Auctori Plebis token to Peter Kempson's mint in Birmingham (who made the Liberty and Security, and Grate coppers). Breen ascribes the token to William Lutwyche's shop (who made the North Wales evasion halfpenny). It first appeared in print in Thomas Prattent's *The Virtuoso's Companion and Coin Collector's Guide,* in 1796. Walter Breen gives 1788–1789 or 1794–1795 as the date of manufacture. We should list this piece as an evasion copper, like the North Wales halfpenny, but for convenience I include it in this Conder token section. They weigh 7.1 to 7.8 grams (regal coppers weigh 9.2–10.8 grams).

Charles Duncan (see references) wrote that the AUCTORI PLEBIS legend originated from the AUCTORI CONNEC legend on Connecticut coppers. In addition, the reverse legend of INDEP ET LIBER originated from the INDE ET LIB on Connecticut coppers. Both legends would have been treasonous on a British evasion piece. Early collectors viewed the Auctori Plebis as part of the Connecticut series.

Duncan felt the token was American made, as Prattent listed it in his index. But this could equally mean made for American circulation. Birmingham mints made many Condor token, though D&H lists them in different towns. The engraver of the reverse dies (albeit a good replica) engraved them to look circulated, bespeaking an evasion halfpenny. Could James Jarvis have engraved this, using Connecticut head punches at Machin's Mills?

Duncan says only 76–200 exist, though Bowers says 250–500. Other rare tokens exist dated 1736 or 1756, with a harp and HISPANIOLA reverse. They have a bust right obverse and the legend AUCTORI PLEBIS. These are of totally different fabric to the 1787 token.

Kentucky Token (1793–1794)

Kentucky Token 1792–1794 #454

This D&H Lancs 59 Conder token shows a hand holding a scroll saying "our cause is just". Some say this is adapted from Washington's April 1793 proclamation of neutrality. Louis Jordan says it refers to Kentucky's desire to secede from Virginia to become an independent state.

The legend reads: UNANIMITY IS THE STRENGTH OF SOCIETY.

William Egle's 1883 *Notes and Queries: Historical and Genealogical, Chiefly Relating the Interior Pennsylvania (page 362),* discusses the history of freemasonry. He says, "there were five mottoes, designating the five principal grades: Freedom with Innocence, We obey, Industry produces Wealth, Unanimity is the Strength of Society, and Be Merry and Wise." Thus, it is possible the legend has a Masonic origin.

The reverse shows 15 states each identified by their first letter on a 12-pointed circle, with Kentucky on top (the most recent statehood in June 1792). This is the reason for the name Kentucky token. The other name is the "starry pyramid". If you read the stars from the bottom left, it gives the order of each state's admission to the Union. Annulets intersperse the stars, perhaps intended as a chain linking the states as in the chain cent. Together the circles make up a radiant pyramid, taken from the all-seeing eye of God. This symbol originated in Christian iconography, showing an eye enclosed in a triangle surrounded by rays of light. If you look in your wallet, you can see it on the Great Seal of the United States on the back of a dollar bill:

All-seeing eye of God from Fr 2306 back. #1150

The all-seeing eye represents the eye of God watching over humanity. The Secretary of the Continental Congress, Charles Thompson, designed the Great Seal of the United States in 1782. Freemasonry did not adopt the symbol until 1797, published in Thomas Webb's *Freemans Monitor*. It reminded people that God always observed people's thoughts and deeds. Thus John Hancock (the engraver) used this device as a Christian device alluding to the Great Seal, not as a masonic device.

John Hancock worked with Obadiah Westwood's Birmingham Mint to make these. He also engraved the 1791 large and small eagle pattern cents for merchants W. and Alex Walker vying for US business.

The legend E PLURIBUS UNUM (Latin for, from many, one), also appeared first on the Great Seal of the United States in 1782. Hancock may have used the Great Seal as a model for the motto. The motto appeared first on a coin on New Jersey coppers in 1786. The motto had no connection to New Jersey coppers. But Walter Mould may have used it after a failed Fugio proposal in 1785, using a left over sample die used for the New Jersey reverse.

Plain edge specimens are found circulated and uncirculated. Diagonally reeded, or lettered edge tokens (PAYABLE IN LONDON LANCASTER OR BRISTOL) are usually uncirculated. Breen said the plain edges were for American circulation and the latter for British Conder collectors. Some feel none of these tokens circulated in America.

Six unique tokens are edged:

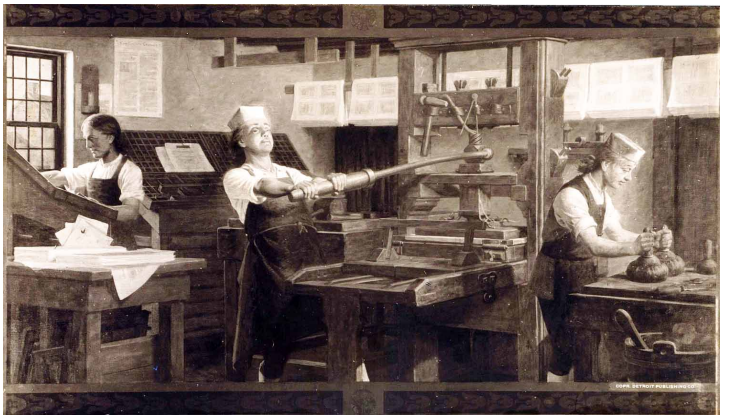
- PAYABLE AT BEDWORTH NUNEATON OR HINKLEY
- PAYBLE AT FIELDINGS MANCHESTER
- AN ASYLUM FOR THE OPPRESS'D OF ALL NATIONS.
- BIRMINGHAM LONDON OR BRISTOL (Unique or two known)
- LANCASTER (white metal)
- Lines and dots (one in copper, one in silver)

Birmingham mints likely struck these rarities for Conder collectors.

Franklin Press Token 1794

Franklin Press Token 1794 #464

Again, this token is a Conder token struck for British collectors not American circulation. The obverse shows a hand printing press used by Benjamin Franklin at his shop in London. Beneath the press is the date 1794. The legend reads SIC ORITOR DOCTRINA SURGETQUE LIBERTAS (Latin for, as learning rises liberty flourishes).



Charles Mills painting of Franklin working on his printing press. Courtesy Wikipedia.

In 1724 Franklin got a loan from Pennsylvania Governor, Sir William Keith, to buy type and printing supplies. Franklin sailed to London aged 18 and worked in the printing shops of Samuel Palmer and John Watts from January to July 1726. He returned to Philadelphia and worked in the Samuel Keimer's printing shop. In 1728 Franklin aged 22, and fellow Keimer printer, Hugh Meredith, left Keimer's shop and set up their own printing business.

The reverse says, PAYABLE AT THE FRANKLIN PRESS LONDON. The Watts Printing Works in London, sold to Cox &

Bayliss in 1763. They may have ordered this trade token (D&H Mx 307a) from the shady William Lutwyche 68 years later. He had a shop in Birmingham, produced the North Wales halfpenny, and often used Hancock as an engraver. However, we do not know who engraved this token. Most specimens have a heavy horizontal die break within the press extending to the right, suggesting a single pair of dies. The tokens did not circulate in America, only amongst English Conder collectors.

Franklin revisited the shop in 1768 as a colonial agent for American colonies. In 1842 the press travelled to the US, ending up at the Smithsonian.

Franklin's printing press from Watts in London. Courtesy of Smithsonian.

Two unique specimens exist: one with a reeded edge, the other a lettered edge AN ASYLUM FOR THE OPRESS'D OF ALL NATIONS. This phrase "An asylum for the oppressed of all nations" came from Adam Fonerden's address to George Washington. He was president of the Baltimore Mechanical Society (firefighters):

> Having our hopes and expectations principally fixed on the National Government for Protection, and encouragement in our various pursuits; and being sensible that our happiness and prosperity in a great measure depend on the continuance of Peace and our being in a State of Amity with the European Nations now engaged in War.
>
> We beg leave in addition to what others of our fellow Citizens of this Town, have presented, to express the high sense we entertain, of the Wisdom and goodness which dictated your late Declaration of the disposition of the Government to observe a strict Neutrality towards the Belligerent Powers who are now desolating the finest Countries of Europe. Our Country lately experienced all the miseries of a desolating and cruel War but by the interposition of a kind Providence, the Americans were enabled under your wise direction, and patriotic exertions during their arduous struggle, to secure the invaluable blessings they now enjoy. Being thus exalted to the possession of Civil and Religious Liberty, and enjoying the benefits of a free and equal Government: we cannot divest ourselves of sympathy for all, who struggle for the same blessings. But the miseries of War we deprecate, and circumstanced as our Country and Government are; the generous French will acquiesce with the American Citizens, in the acknowledgment of that Political truth, which you have wisely enjoined "That the duty and Interest of the United States require that we should with Sincerity and good Faith, adopt and pursue a Conduct Friendly and impartial towards the belligerent Powers" this conduct we do for ourselves adopt and mean to pursue, and we are persuaded it will be the conduct of all our good and virtuous Citizens. Peace will thus be preserved, the true Interest of our Country promoted, Happiness extended, and **an asylum secured to the oppressed of every Nation** and Country. Signed by order of the Society at their Stated quarterly meeting. Baltimore 4th June 1793.

1794-1795 Talbot Alum & Lee cents

Talbot Alum & Lee Cent 1795 #494

The Talbot, Alum & Lee Company (TAL) imported tokens to circulate in New York City. They imported goods from East India from 1794 to 1796 to their place of business on 241 Water Street, close to the docks and Fraunces Tavern. Today the Staten Island and Governor's Island ferry terminals and Battery Park are nearby.

TAL asked Peter Kempson's Birmingham Mint to strike about 200,000 halfpenny sized tokens (two tons), using Thomas Wyon as the engraver. Kempson also struck the 1795 Liberty and

Security Washingtonia. The US Mint had only just started striking large cents. In 1793 they struck 110,512 large cents — hardly enough for the 4 million population!

The 1794 cents had NEW YORK on the reverse and people accepted them. Today most examples are circulated. But few accepted the 1795 tokens. So, TAL sold 1,076 pounds of the tokens in April 1795, and another 1,914 pounds in December 1796, to the Philadelphia mint to use as planchets. At 46 to 50 to the pound, this yielded around 150,000 planchets. These planchets measured 28.6mm and weighed 9.1 to 10.0 grams. However, Congress ruled the large cent be 29mm and weigh 13.48 grams. So, the Mint could only use them for half cent planchets and cut them down. Nevertheless, two large cents exist struck over TAL planchets.

The April 1795 shipment became planchets for 1795 half cents without poles (struck in Spring 1796). The December 1796 shipment became the planchets for all types of 1797 half cents. Many 1795 and 1797 half cents still exist struck over TAL cents.

Until the 1930s and 1940s collectors found TAL cents rare. But London dealers started releasing thousands of uncirculated pieces they had in inventory. Many 1795 pieces are uncirculated.

Talbot Allum and Lee Cent 1794 #1721

The 1794 token's obverse shows standing liberty (as Louis Jordan says, "following the French style with her right breast exposed".) She has a parcel behind her which looks like a bale of cotton and the inscription LIBERTY & COMMERCE.

The 1794 edge reads, PAYABLE AT THE STORE OF. The reverse continues with, TALBOT ALLUM AND LEE/NEW YORK with ONE CENT below. The central device is a merchant ship of the era at sea. Kempson mistakenly struck the first few tokens with a reverse that omitted NEW YORK.

In 1795 Wyon engraved the edge with WE PROMISE TO PAY THE BEARER ONE CENT. He continued with the legend on the reverse AT THE STORE OF TALBOT ALLUM & LEE NEW YORK. Both these tokens show why all numismatists should examine the edge of every coin.

Both years of issue had thick and thin planchets, weighing respectively 9.8–10.0 grams and 9.1 grams. These are all issues for American circulation not Condor tokens.

But Kempson created rarities for Conder collectors in England using these dies:

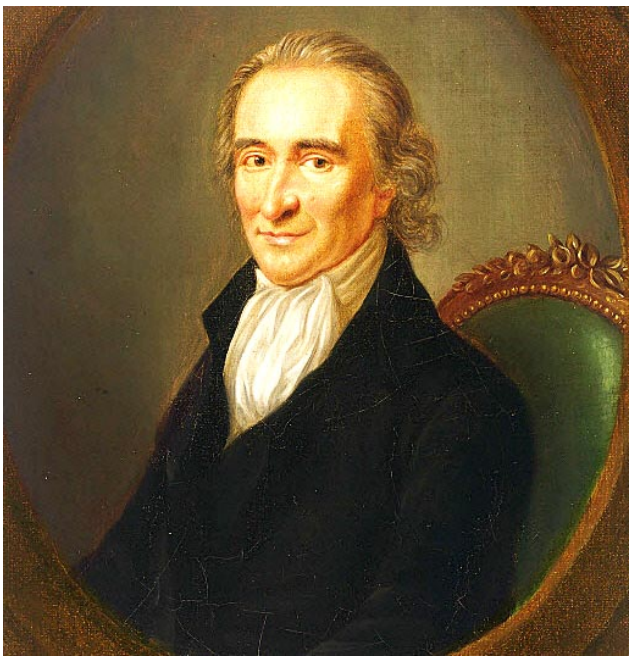
- plain edge variety
- edge with CAMBRIDGE BEDFORD AND HUNTINGDON.X.X.

Kempson also muled the obverse with six different reverses for Conder collectors:

- Boy standing with vertical screw, legend BIRMINGHAM HALFPENNY (D&H Warwicks 54)
- Standing stork, legend PROMISSORY HALFPENNY (D&H Hamps 52)
- Earl Howe, legend EARL HOWE & THE GLORIOUS FIRST OF JUNE (D&H Hamps 25)
- John Howard, legend JOHN HOWARD F.R.S. PHILANTHROPIST (D&H Hamps 56)
- Military gear, legend BLOFIELD CAVALRY (D&H Norfolk 10)
- York cathedral, legend FEAR GOD AND HONOUR THE KING (D&H Yorks 65)

TAL/John Howard Mule #742

1794 – 1797 Thomas Paine Tokens



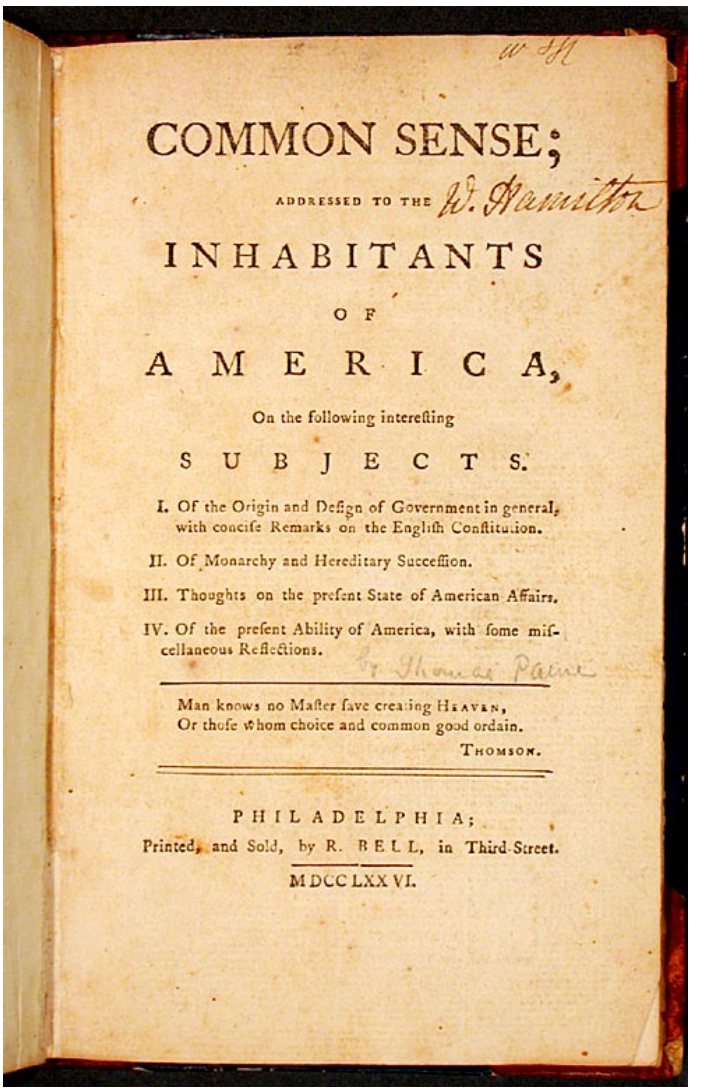
Thomas Paine from National Portrait Gallery

Thomas Paine (1737/6–1809) apprenticed to his father as a corset maker in Kent, England. His business failed, so he moved to Lincolnshire as supernumerary army officer. He then moved to take a position as an Excise officer. However, they dismissed him for "claiming to have inspected goods he did not inspect". Soon he moved to Cornwall, then to London where he became a schoolteacher. He then moved to Sussex where he sat on the town governing board of Lewes. A lot of moving!

In 1772 he published his first political work, *The Case of the Officers of Excise.* Two years later the government again dismissed him as an excise officer for being absent without permission. He owned a tobacco shop which failed. To avoid debtor's prison, he separated from his second wife and sold all his assets. He moved to London where he met Benjamin Franklin in September 1774. The next month he immigrated to America.

He almost died from typhoid fever, caught on board ship. The *Pennsylvania Magazine* then made him editor, and people thought well of him. He continued with political articles, the first entitled *African Slavery in America*, which he attacked as "execrable commerce."

His 1776 pamphlet, *Common Sense,* made him famous. Five hundred thousand copies circulated among the two million population in America, earning him fame as pro-American Revolutionary and anti-monarchy firebrand.



COMMON SENSE;

ADDRESSED TO THE W. Hamilton

INHABITANTS

OF

AMERICA,

On the following interesting

SUBJECTS.

I. Of the Origin and Design of Government in general, with concise Remarks on the English Constitution.

II. Of Monarchy and Hereditary Succession.

III. Thoughts on the present State of American Affairs.

IV. Of the present Ability of America, with some miscellaneous Reflections.

By Thomas Paine

Man knows no Master save creating HEAVEN,
Or those whom choice and common good ordain.
THOMSON.

PHILADELPHIA;
Printed, and Sold, by R. BELL, in Third-Street.
MDCCLXXVI.

Paine moved back to London in 1787, and wrote *Rights of Man* in 1791, defending the French revolution. The book sold a million copies. Within a month he had to leave for France. After attacks on Edmund Burke, an Anglo-Irish MP, England tried Paine in absentia for seditious libel. Pitt the Younger's government worried that the French Revolution may spread to England, as Paine encouraged the common people to overthrow their governments.

France made him a French citizen. But, after two years in France, revolutionaries imprisoned him as he opposed Louis XVI's execution. In prison he wrote *The Age of Reason.* This argued against Christian doctrine and against institutionalized religion, instead advocating deism. Deism asserts that reason and observation of the natural world, not revelation, should argue for a supreme being. President Monroe got Paine released in 1794.

In 1802, Paine returned to America to live out the rest of his days. John Adams said without *Common Sense*, "the sword of Washington would have been raised in vain." It was Paine who proposed the name, "United States of America." William Nipper points out that Paine gave the proceeds of his publications to the American Revolutionary cause.

Noted Advocates for the Rights of men token#1718

This token is halfpenny size made for the Conder trade. Three men hang from a gibbet. The three advocates the token refer to are Thomas Spence, Sir Thomas More and Thomas Paine, all of whom the government prosecuted for their writings.

The reverse legend is perhaps a reference to "Knaves," a card game, similar to rummy, in which having a knave in hand removed trick points.

End of Pain Condor Token #1719

This token halfpenny shows a man hanging from the gallows. A church in the background refers to Paine's atheism, expressed in *The Age of Reason*. The legend END OF PAIN is a play on words of end of Paine, whom they sentenced to jail, not hanging.

The reverse shows breeches on fire. Paine's head is severed by a dagger from the snake's body. The snake tail represents a sting severed from the main body. Perhaps the implication is that Paine was a snake and someone had cut the sting from his body.

Above this are stuffed woolen breeches on fire. People found these in the House of Commons in 1792 trying to set the House on fire. They called them Pandora's breeches because all the ills in life (i.e. American Revolution) came from Pandora's box. A die break runs from 12 o'clock to 4 o'clock.

The English also made medals about Thomas Paine. This one below refers to a quote from Horace, "The mountains are in labor, an absurd mouse will be born."

1793 Thomas Paine medal #2783

The mouse represents Paine's Age of Reason. A second medal shows a man hanging from a tree holding a book. A cartoon from his mouth says, "I die for this damn'd book", with a legend TOMY'S RIGHTS OF MAN.

In England, the shortage of English regal coppers, the population explosion, and the Industrial Revolution, all drove private minters to make tokens from 1787 to 1801. Conder collectors drove the craze further. Matthew Boulton (1728–1809) financed James Watt's steam engine and started steam pumps to drain mines then the first steam coin presses in his Soho mint.

The New York Theater tokens sell for $20,000–30,000, not collectable for ordinary mortals.

Below I list Conder tokens related to America. Some use only one side of the coin and have no D&H listing number. For example, TAL cents in America used an obverse that minters later paired with six other Condor tokens earning them a listing in D&H. But the original TAL cent earned no listing in D&H.

Conder Tokens Related to America:

a.Tokens

1787 Auctori Plebis Token (rev only)
1792–5 Kentucky Token
1794 Franklin Press Token
1798 New 1798 York Theater token

b. Washingtonia (listed under Washingtonia)

1791 Small & large eagle cents
1791 Liverpool ship ½ d (obv only)
1793 Ship ½ d.
1795 Grate tokens, small & large buttons
Lib & Sec ½ d 1795, & 1d, no date & 1795

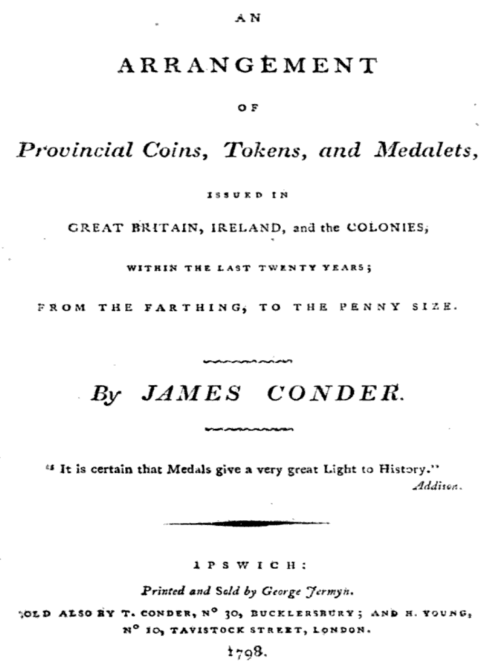
c.Thomas Paine No date (1794–1797)

¼ d. (3 types, all obv only)
½ d (3 types obv only, 1 rev only, 1 obv and rev)

d.TAL Mulings obv is standing liberty w/bale

1794 Rev boy with screw
1794 Rev Stork
1794 Earl Howe
1794 Rev John Howard
1795 Rev Blofield Cavalry
1795 Rev York Cathedral

Mott, Myddleton, and North Wales tokens not listed in D&H.



AN

ARRANGEMENT

OF

Provincial Coins, Tokens, and Medalets,

ISSUED IN

GREAT BRITAIN, IRELAND, and the COLONIES,

WITHIN THE LAST TWENTY YEARS;

FROM THE FARTHING, TO THE PENNY SIZE.

By JAMES CONDER.

"It is certain that Medals give a very great Light to History."
Addison.

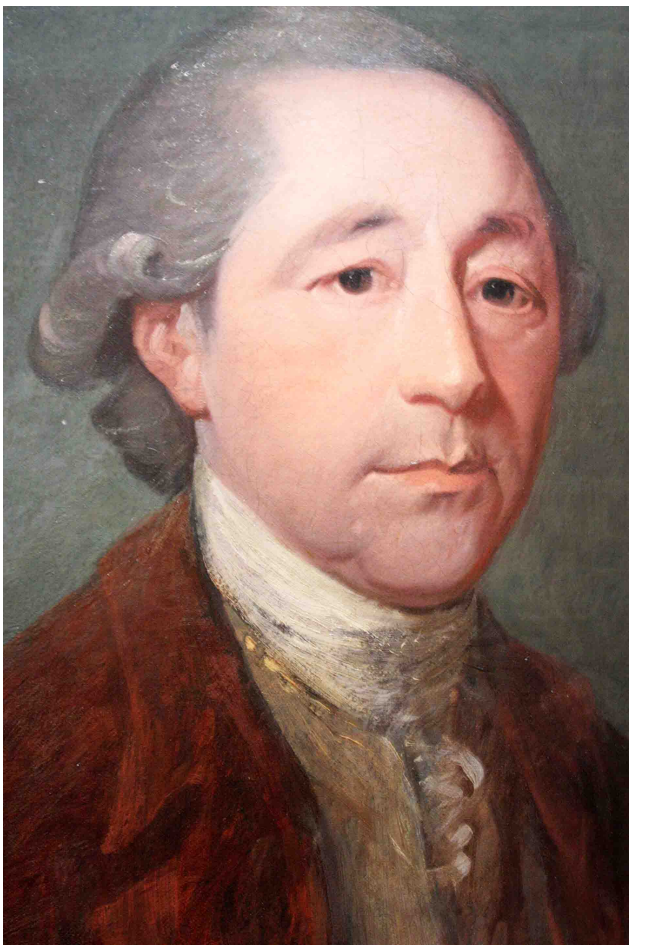
IPSWICH:

Printed and Sold by George Jermyn.

SOLD ALSO BY T. CONDER, N° 30, BUCKLERSBURY; AND H. YOUNG, N° 10, TAVISTOCK STREET, LONDON.

1798.

Title page of first book on Conder tokens 1798. Courtesy of Google books.



Matthew Boulton, the industrialist of minting.

References:

Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American coins*. Whitman Publishing, Atlanta, GA 2009
Breen, Walter H., *Complete Encyclopedia of U.S. and Colonial coins*. Doubleday Books, NY, NY 1988
Crosby, Sylvester S., *Early Coins of America*, Published by the Author, Boston, MA. 1875
Dalton, R., and Hamer, S.H., *The Provincial Token - Coinage of the 18th Century,* Alan Davisson reprint 1990: Cold Springs, MN,
Duncan, C.V., *The Auctori Plebis Token & Related Pieces*. CNL Sequential page475-479. April 1975
Mossman, Philip L., *Money of the American Colonies and Confederation*. ANS, NY, NY. 1993
Nipper, Will, *In Yankee Doodle's Pocket*. Bowmanstone Press, Conway AR. 2008
Vlack, Robert A., Early American Coins. 2nd Edition. Windsor Research Publications, Inc., Johnson City, NY 1965
Yeoman, R.S., *Guide Book of United States Coins*, Whitman Publishing, Racine, WI. 1947
Yeoman, R.S., *Guide Book of United States Coins*, Whitman Publishing,
By Charles E. Mills - This image is available from the United States Library of Congress's Prints and Photographs divisionunder the digital ID cph.3g07217.This tag does not indicate the copyright status of the attached work. A normal copyright tag is still required. See Commons:Licensing for more information., Public Domain, https://commons.wikimedia.org/w/index.php?curid=5066735
https://founders.archives.gov/documents/Washington/05-13-02-0012
https://ids.si.edu/ids/deliveryService?id=NMAH-ET2016-08019
By Laurent Dabos - National Portrait Gallery, Public Domain, https://commons.wikimedia.org/w/index.php?curid=61407381
https://en.wikipedia.org/wiki/Thomas_Paine#/media/File:Commonsense.jpg

522

AUCTORI PLEBIS TOKEN. Breen-1147; 27.4mm, 7.87 Grams EF

454

KENTUCKY TOKEN (STARRY PYRAMID). BREEN 1154; D&H LANCS 59; 29.3MM, 9.94 GRAMS UNC

468

1794 Franklin Press Token. W-8850; D&H Mx 307; 28mm, 8.01 Grams AU+

1721

1794 Talbot Allum & Lee Cent with New York. W-8590 29mm, 10.12 Grams MS 67

494

1795 Talbot Allum & Lee Cent. W-8620 28.5mm, 10.02 Grams MS 64

742

1794 Talbot Allum & Lee / Howard Mule W-8720 29mm, 7.69 Grams AU 55

1718

Noted Advocates for the Rights of Men 1796. Condor Token. W-9022; D&H Mx837; 29mm, 10.90 Grams AU

1719

END of PAIN Condor Token. W-8984; D&H Mx 829a; 29.5mm, 6.53 Grams AU 58

2783

THOMAS PAINE WHITE METAL MEDAL MOUSE ON MOUNTAIN. EIMER-851; 32.7MM, 11.07 GRAMS EF (US AU 58)

CHAPTER TWENTY-EIGHT
COMMODITY AND TRADE MONEY

In the beginning there were Indians. The New World had many tribes. Most had trading arrangements, but few had what we call money. The Incas had no money. The Aztecs used "hoe money." Pre-Columbian media of exchange were cacao beans, cotton fabric, gold dust in quills, tin splashes, and cast copper tajaderas. Some say they used cast gold discs called tepuzque, but no one has ever seen one. In 1548 Francisco Lopez Tenorio recorded in the *Archivos de las Indias* that shiny new tajaderas were worth 1¼ Spanish reales, but if worn, were worth 10 to a real. The tajaderas below circulated 1200–1500 CE.

Tajaderas Opitz type 2b. Circa 1200-1522 CE.

Numismatists would love to think North American Indians had money. They quote wampum beads. But Indians used these like a greeting gift when interacting with another village, not as money. If they greeted a sachem, they might give him a wampum belt rather than a small necklace. But even the belt was not money. The Dutch made wampum into money.

North America comprised French Canada and Louisiana in the north, the Dutch New Netherland around the Hudson River, and Spanish Mexico in the south and west. In Europe they called united provinces New Netherland**s**. In America they called the single province New Netherland. Moritz Wormser incorrectly called himself the New Netherland**s** Coin Company. His son Charles took over and invited in John Ford Jr. as a partner.
If you spoke to anyone in Europe in the 1600s about American colonies, they were talking about the West Indies, not mainland America. Barbados and Jamaica were the real money makers for the British. The money came from Caribbean sugar plantations and the slave trade.

The institute of slavery created a different society in the New World. The Crusades had led to captives, both Christian and Muslim, who worked in Sicily, Cyprus and Malta to produce sugar. Venice and Genoa soon controlled the trade and looked for slaves from the Black Sea area. When Byzantium fell to the Muslim Ottomans in 1453, Christians lost their source of slaves. By 1460, Portugal traded West African slaves to work on Madeira to cultivate sugar. This challenged Venice's and Genoa's monopoly.

The Spanish, who controlled mainland central and south America, quickly depopulated Hispaniola and Cuba of Taino Indians to work the mines. After the Spanish priest Bartolomeo de las Cases condemned this as immoral, the Spanish turned to African slaves.

The large Caribbean islands, Hispaniola and Cuba, were ideal for tobacco. But by the 1640s the Spanish lost their tobacco monopoly to Virginia. Spain switched to sugar, which needed slaves. The British and Dutch entered the slave trade to sell slaves to the Spanish. Indians and Europeans died off too quickly when worked on these islands. African slaves were superior.

What came about in Spain, France, England and Holland was an economic system called mercantilism. No one in the 1500s sat down and wrote, "I have a new theory called mercantilism". It evolved by itself in England, France, Spain, and Holland. In 1704–1705 John Law wrote about banking and fractional reserves to create credit. But his 1720 Mississippi bubble was a disaster. Adam Smith published *The Wealth of Nations*, the first work on political economics in 1776, pushing free trade.

So, what was mercantilism? Professor Robert Allison, at Suffolk University in Boston, lists the following components of mercantilism:

- The mother country's interest always came first.
- The mother country must export more than it imports.
- Gold (and silver) is the new measure of wealth. Like the man with the most toys, the country with the most gold wins!
- Portugal had the West African monopoly of gold; Spain had the Mexican monopoly. England, Holland, and France had to get the gold by trade or robbery, and keep it.
- Nations had to build expensive navies to police their sea routes.
- Mother countries used the WIIFM principle: what's in it for me? Colonies must benefit the mother country not drain it.

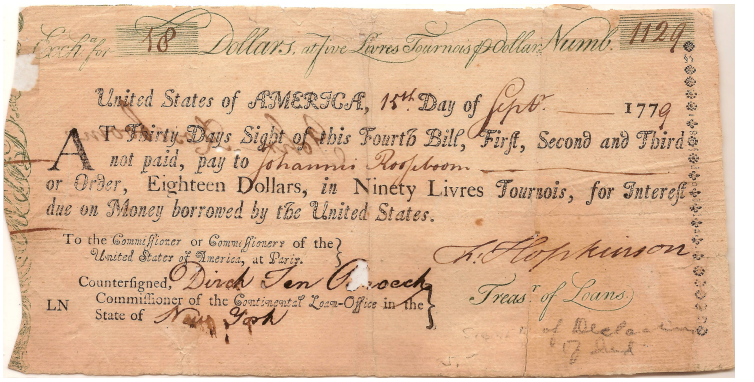
Britain wanted America to produce raw materials only. America would need little specie if they produced no finished goods. American merchants had to use English credit accounts. Thus, the colony provided the motherland with monopolistic access to raw materials. Britain could then sell them finished goods. The motherland had to control the flow of goods and money and protect their territory.

The British passed the 1651 Navigation Act that only British ships could ship goods between America, the Indies and Britain. This included ships made in Massachusetts. Another Act in 1660 prevented foreign ships from trading with British colonies. They could only trade with England. They added an "enumeration clause," that colonies could only ship specific goods to England e.g. sugar, cotton, tobacco, and indigo.

The Staple Act of 1663 prevented all commodities from being shipped to America unless it went to England first (except wine and madeira). This completed the mercantilist trap.

As a byproduct of the policy, they took all steps to accumulate specie in the mother country. England did not pay colonial merchants with specie, but with deposits to a bank account in England. The merchants (called factors) used bills of exchange (BOE) payable from the bank account to buy finished goods. Benjamin Franklin said most foreign transactions used bills of exchange.

American ships often sailed to the West Indies where they acquired cobs and Spanish milled dollars. These ended up in British America.


Exch.ge for 18 Dollars, at five Livres Tournois p. Dollar Numb. 1124

United States of AMERICA, 15th. Day of Sept. 1779

At Thirty Days Sight of this Fourth Bill, First, Second and Third not paid, pay to Johann Ryerson or Order, Eighteen Dollars, in Ninety Livres Tournois, for Interest due on Money borrowed by the United States.

To the Commissioner or Commissioners of the United States of America, at Paris.

Counterfigned, Dirck Ten Broeck, Commissioner of the Continental Loan-Office in the State of New York

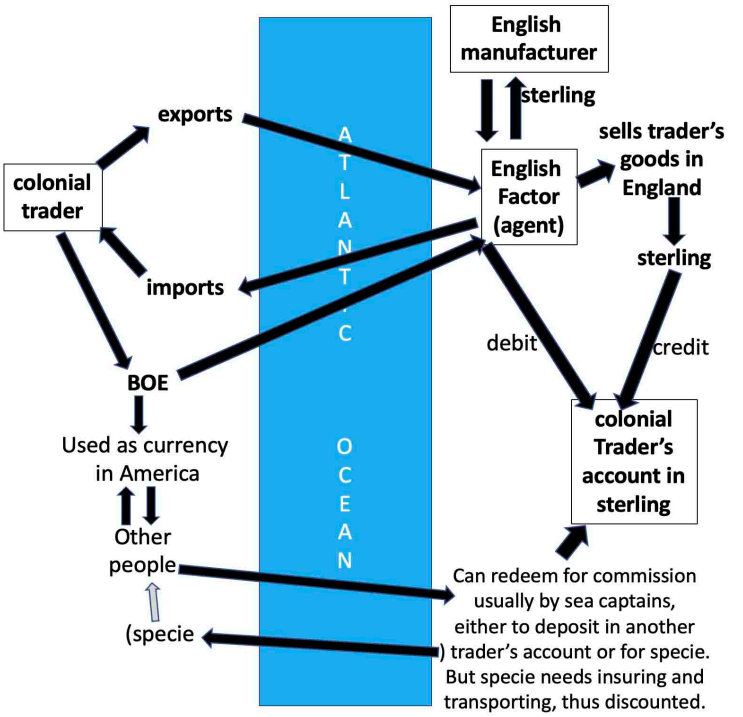
LN

A. Hopkinson, Treas.r of Loans

BOE for $18 payable from USA Commissioner's account in Paris.

But not for long, as specie, bought more goods from England.

Note the BOE above has four copies. Thus, when redeemed in Paris, if you lost the first, second or third when a ship sank at sea, you did not lose the money.



How BOE system worked to keep specie in England

PIRACY

Piracy sprang up when disgruntled Spaniards in Hispaniola left the towns and lived in the woods. There they hunted and roasted meat on barbecues called buccans, hence the name buccaneer. When they saw unarmed merchant ships pass by, they boarded canoes and took over the ship. In the 1660s they moved to Tortuga to escape Spanish policing.

Tortuga was French, but the French did not mind. All the money ended up in French hands!

In 1655 the British occupied Jamaica, which became the pirate capital of the world. The famous Captain Morgan sacked Portobello and Panama City. Pirates did not bury treasure, they spent it! The money ended up in British hands anyway! Instead of hanging him, Charles II knighted him and returned him as the Vice-Governor of Jamaica! The British and French encouraged piracy to get specie from the Spanish.

The mercantilist system lumbered through the 1600s and 1700s until the US, following Adam Smith's system, pushed free trade in the 1800s.

COLONIAL MONEY THEMES

The functions of money are:

- A store of value
- A unit of exchange
- A pricing mechanism

Common themes in early colonial America were:

- a shortage of currency
- 90% were farmers, who had little need for money
- Trade, using commodity items or an account book
- people frowned on borrowing money; bankruptcy meant debtor's jail
- dreams of religious freedom and equality
- distrust of government and taxes

British America was not a united colony until the 1780s. It consisted early on of:

- Puritans in New England
- Aristocrats in Virginia
- Quakers in Pennsylvania
- Borderland immigrants to Appalachia

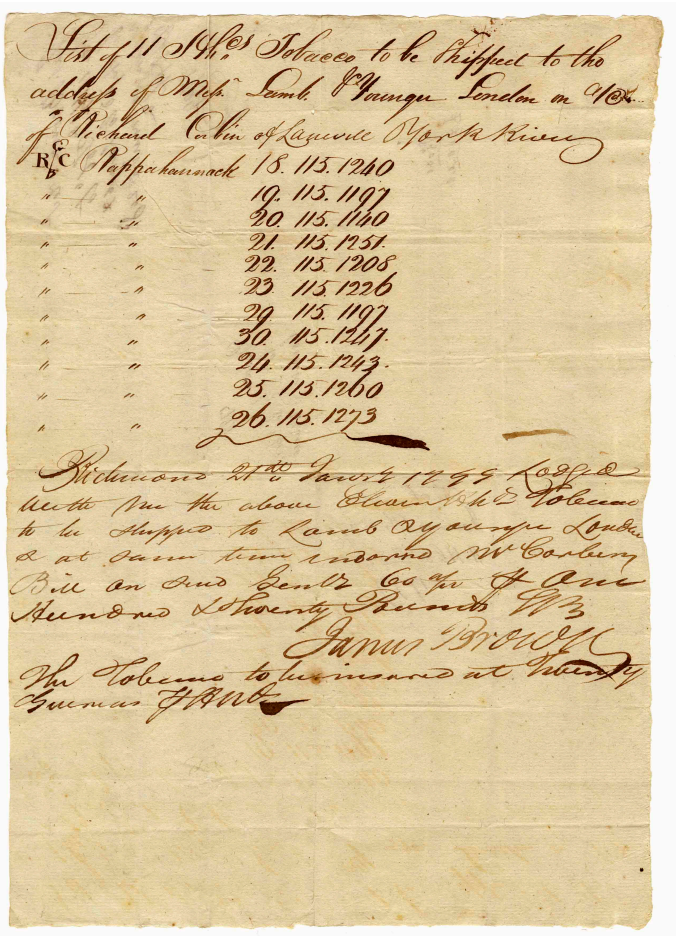
What forms of money were available to colonists?

- Specie
- Commodity and trade money
- barter
- paper money
- account books or money of account

COLONIAL PAPER MONEY

Looking further, colonial paper money included:

- **bills of credit**. The first paper money in North America were IOUs on playing cards for military pay in 1685. The French government forbade paper money, but the practice continued until 1757 in Canada. Massachusetts issued £7,000 of paper bills of credit in 1690 to pay for 32 ships and 2,200 men to invade Quebec for England. Colonial governments backed bills of credit.
- **Loan issues**, especially for land. Colonial government land offices backed these notes. Franklin called them "coined land."
- **Bills of exchange** already discussed.
- **Commodity money** e.g. tobacco warehouse receipts. But, once sold, they destroyed the receipt.



Tobacco receipt & transcript courtesy of Colonial Williamsburg Foundation, used instead of money.

By 1755 all British American colonies issued paper money. Before around 1750 most paper money was portrait format and large. Once used to pay taxes, they destroyed the note, so these notes are rare today.

After 1750, most paper money was portrait or landscape format and smaller. If governments retired notes quickly, they reduced the colonial money supply and velocity of money. So, it had little inflationary effect and helped business. But if not retired, notes usually depreciated.

The northeast and west used more paper money. Southern colonies interacted more with the West Indies so had more specie, especially Spanish silver.

Colonial businesses were private individuals, not companies. Only six businesses chartered during colonial times, but they were the exception, not the rule*. England formed joint stock companies. A group of wealthy individuals put money up to start large investments overseas. These included the Hudson Bay Company in the 1600s, the Massachusetts Bay Company in 1629, the Ohio Company in 1749, and the South Sea Company in 1720. But these were English companies.

How did colonists avoid counterfeit paper money?

- complex printing and multi-color printing
- detailed artwork
- secret marks, like weird characters, misalignment, broken characters
- font changes, misspellings
- mica chips or colored fibers in the paper
- indented notes
- marbleizing
- watermarks
- embossing
- intaglio printing not lithography
- personal signatures
- printing, "To Counterfeit is Death"
- nature prints of leaves
- detector bills
- serial numbers
- plate position letters and numbers

Many of these anticounterfeiting devices came in the late 1700s. I only mention paper money to show that the colonies did not rely only on coins. They used barter, commodity and trade goods, books of account, and paper money.

How did colonists avoid depressions with an insufficient money supply? As 90% relied on barter, government controlled legal tender was less of a concern. Gresham's law dictates that good money e.g. silver coin, drives out bad e.g. paper money. People hoarded their silver coins, and tended only to spend their paper money.

Each colony (or state today) was like a country today. Each had their own money system, like how many coppers made up one shilling, and their own paper money. Britain controlled most foreign exchange with the BOE system.

William Nipper estimates that in 1700, New England had around £200,000 of circulating silver. In 1713 they had around £130,000 of circulating silver and £220,000 of paper money. The lack of banks in pre-federal America meant people could not write checks to increase the velocity of money. The true money supply includes not just the circulating specie, but how often it changes hands, called velocity of money.

COLONIAL INCOMES

It is difficult to estimate true colonist's incomes. As 90% were farmers, 90% of their products came from their own farm. Those that did not, like plow blades, tin ware, cutlery, nails, saws, etc., the farmer would acquire by taking his goods to the local store. There, the store owner would credit him for the items, then exchange the goods for the blacksmith's items. The blacksmith likewise had credit on account at the same store, where he could buy his food. The store keeper kept an account book and money did not need to change hands. We call this money of account. The storekeeper earnt money by commission. Naturally, nothing stopped the farmer and blacksmith bartering directly.

One guide to colonial incomes comes from sailors. A period proverb said "the sea and the gallows refuseth nobody." Sailing was brutal. Sailors pay increased if they were skilled, if it was wartime, or if the voyage was long or hazardous. An underestimated factor is that sailors had chests or cabins, in which they could transport goods for others, or even people, and make considerable income on the side. A nice way of thinking about pay is a Spanish piece of eight or crown, and its fractions. In the 1600s, unskilled sailors received around eight crowns a month i.e. ¼ crown a day.

In the colonies, they paid workmen according to skill, location, and whether they received food, room and board. In 1632 Governor Winthrop said carpenters and masons made three shillings a day, roughly half a crown.

In England in 1710 general laborers received ¼ crown per day in pay, skilled trades got about double this, and professionals received around 1 ½ crowns a day (six times that of a laborer).

*** Only six colonial companies were chartered:**
New York Company for Settling Fishery in Parts,
Free Society of Traders,
Philadelphia Contributionship for Insuring Houses from fire,
New London Society for Trade and Commerce,
Union Wharf Company of New Haven,
Proprietors of Boston Pier.

Farm laborers and sailors received room and board on top of their wages. In Salem, Massachusetts, in 1677, they paid a carpenter £20 a year (around ¼ crown a day) for building a town hall. They paid one third in specie and two-thirds in provisions. It is a cool connection with history holding a Spanish milled dollar in your hand. It was four days' wages for a sailor or laborer (a $500 or $1,000 bill today).

COMMODITY AND TRADE ITEMS

William Nipper gives a typology for commodity and trade money, which is a useful way to think about these items. He divides them into useful versus symbolic items and imported versus locally produced items.

Useful imports include metal cookware, steel cutting tools, gunpowder, and woven cloth.
Symbolic imports included trinkets, and glass beads.
Locally produced useful goods included food, wool, tobacco, pelts, lumber, shot, and nails.
Locally produced symbolic goods included wampum and trade silver.

Early on colonists imported distilled alcohol and trade silver, but soon could produce them locally. A Boston distillery produced rum after 1657. Colonists made their own beer, cider and wine. The Puritans brought more beer than water on board with them! They believed God created alcohol and that it was good. Indeed, beer was healthier than water, because the alcohol content stopped water-borne diseases.

Trade goods were those that had a more fixed value and were non-perishable, and easy to transport. These included wampum, beaver skins, trinkets, cloth, axes, and knives for Indians.

Commodity money included food like corn, pork and beef, tobacco, shot, gunpowder, nails, tar, pitch, and livestock. But these were often perishable, and harder to transport.

William Nipper called the commercial frontier the line beyond which people preferred commodity money over coins or paper. East of this line, when settlements reached a critical mass, people preferred coins and paper. The real western frontier was countryside with less than two people per square mile. There you would want commodities, not money.

Country money was common commodity items in the country. Examples are corn molasses, pine boards, bearskins, wheat, peas, rye, barley, and livestock.

Country pay or current money were commodities whose values colonial governments listed as good for payment in taxes. Examples were grains, and peas.

Barter and money of account as noted were another way of sidestepping specie.

I will now deal with the following commodity and trade item examples:

- kettle points
- tobacco
- beaver pelts
- shot
- nails
- wampum
- trade silver

Kettle points

Kettle point. 36x17.5 mm, 1.96 grams #1823

Indians traded pelts like bear or beaver for steel arrowheads, knives, axes, and metal cookware. The Dutch trading up the Hudson river traded copper kettles with the Seneca Indians for furs around 1650–1670. The Indians used the kettles for arrow heads or holed bits of copper for adornment, when they called them "tinkling" because of the noise they made. Indians scored one side of the copper then abraded the raised reverse to cut them up. They knew how to tension metal by heating and hammering too. Copper arrow points were much quicker, easier, and better than flint or quartz. After 1680 the Indians only wanted guns. These kettle points came from the Dann Indian burial site, 30 miles south of Rochester New York State. The closest town was Honeoye Falls

Tobacco

Tobacco receipt 1785, Courtesy Colonial Williamsburg Foundation.

Bunch of dried out leaf tobacco.

I told the story of Virginian tobacco in Chapter 2. Tobacco was money in Virginia and Maryland. But rather than carting around 60 pounds of tobacco, receipts were easier to handle in Virginia. Tobacco was also a commodity item as so many people smoked.

Indians introduced tobacco to Christopher Columbus in 1492. The Spanish started importing it to Europe in 1528. They had the Caribbean tobacco monopoly so controlled the European market. Jean Nicot, French ambassador to Portugal, sent tobacco to his King, Francois I. He included instructions on how to use it as snuff. This reportedly cured the King's headaches. Botanists named it Nicotiana after ambassador Nicot.

Sir Walter Raleigh showing smoking to British nobles 1585 on back of $2 Original national Bank Note. #1256

In 1584, during Virgin Queen Elizabeth's reign, Sir Walter Raleigh led an expedition to settle North America. He selected Roanoke Island, but the expedition failed. The next year, he promoted tobacco's benefits, making it fashionable in Queen Elizabeth's Court. But when King James I came to power in 1603, he opposed Raleigh and opposed tobacco. Tobacco changed from fashionable to foul.

Indian Virginian tobacco (Nicotiana rustica) was harsh to smoke. But the Spanish cultivated a milder Caribbean variety (Nicotiana tabacum). In 1612, John Rolfe, from Jamestown, Virginia imported this. By the 1620s the English had ambushed the Spanish tobacco monopoly. By the 1640s the Spanish switched from tobacco to slaves tending their Caribbean sugar plantations.

Beaver pelts

French Canada sent "coureurs de bois" or woodsmen, who hunted and traded for pelts. The underbelly of beaver fur is soft and produced felts that outlasted woolen felt. It became very fashionable until the silk stove pipe top hat took over in the mid 1800s.

Two French coureurs des bois, Pierre-Esprit Radisson, and his brother-in-law Médard des Groseilliers, visited present day Wisconsin, staying with the Ojibwa Indians. They gave a kettle, two axes, six knives, and a sword blade to the men; awls, needles, scrapers, combs, red paint and tin mirrors to the women; and brass rings, bells and beads to the children. Ojibwa women at one ceremony threw themselves on the ground then became overtly sexual.

Sachems told the two men they were free to sleep with any unmarried women of the village, as long as they did not trade with the Dakota! No one recorded whether the two Frenchmen took them up on their offer.

The French Governor in Canada taxed the two's furs heavily one year when they arrived two days late from a year in the wild. The two went to a law court for several years without success. So, they turned to the British King Charles II. He sent an expedition to Hudson's Bay in 1669, which cost him £650. Radisson returned with £19,000 in furs! The next year the Crown set up the Hudson Bay Company (HBC) as a joint stock company, with Prince Rupert, Charles' cousin, as first governor.

They called the territory they granted to HBC Rupert's Land, a source of enormous wealth to England. Though never clearly defined, it stretched from Labrador to the Rockies. From 1686 to 1713 the French captured many of their posts. But the Treaty of Utrecht, ending the War of Spanish Succession, returned them to England in 1713.

Beaver pelts were worth ten shillings (two crowns) or eight days wages for a laborer in Massachusetts. In New Netherland they were worth 160 stuivers, equivalent to four lion dollars, or just over three Riksdalers of 50 stuivers.

Musket shot

Musket shot Brown Bess left, Charleville right.

In 1635 the Massachusetts General Court wrote "musket bulletts of a full boare shall passe currantly for a farthing apiece, provided that noe man be compelled to take above xii att a tyme". Outside Massachusetts, musket balls were also in demand. Colonists could make them by melting lead into a small portable mold. Crosby says perhaps the order ensured everyone had some musket balls in case of war. Even after the 1600s frontiersmen needed them all the time. It is easy to see them passing as money.

The English supplied their red coats with a Brown Bess. Their barrels had an internal diameter of 0.75 inches, accepting balls of 0.69 inches (left ball opposite). This ball came from a Hagerstown, Maryland excavation.

The French supplied the American Revolutionary Army with Charleville muskets. They had an internal diameter of 0.69 inches, accepting balls of 0.65 inches (right ball opposite). The extra room was for build-up of black powder in the musket barrel.

The Charleville ball shows a medial ridge, the seam from the two cups of the mold meeting, and a casting sprue (the circular projection caused by the filling hole). Old musket balls are typically off-grey from lead carbonate build up on the outside.

Nails

Ancient Egyptians and Romans used organic glue to fasten furniture. After the fall of Rome in 476, glue technology became a lost art. Most blacksmiths hand forged nails square in cross section, tapered, and with a hammered head attached. Carpenters used these instead of glue.

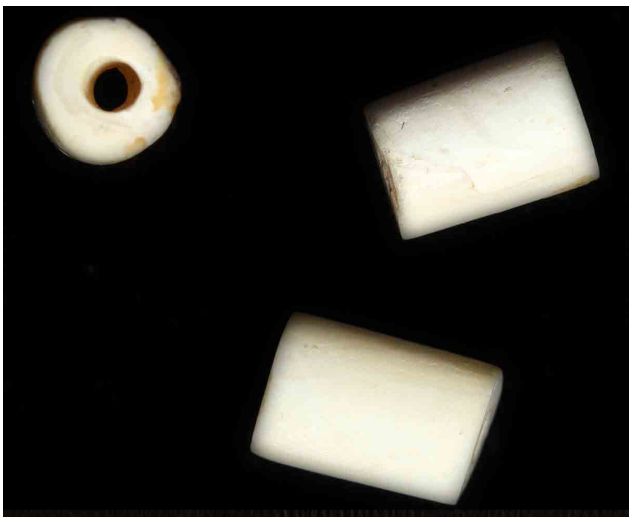
Nails had value, and colonists often burnt ruined buildings to recover the nails for re-use. Tiny nails had an L-shaped head. Until the late 1700s most nails in fine furniture had rose-cut heads. In the 1800s nails were still hand forged and tapered, but rectangular instead of square in cross section, and had hammered rectangular heads like the picture above.

In the 1850s manufacturers started making non-tapered steel wire nails with tiny widened heads called “brads”.

Around 1880 manufacturers made non-tapered steel nails with sharpened points and attached round heads.

The “d” used for nail sizes refers to the price of nails in England in the 1600s. A hundred nails for 4d were 4d nails, 100 nails for 12d were 12d nails and so on.

Wampum



Fresh wampum 4-4.5mm wide, 6-7mm long #1601

Aged, worn wampum from Dann site #1803

Quahog shell used to make wampum.

Ever since I read about wampum in Sylvester Crosby’s *Early Coins of America*, I had to own some! My chance came when I saw John Kraljevich at a coin show. He had 55 beads from the Dann site near Honeoye Falls, New York State, circa 1687. Dutch or Dutch allied Indians likely made these 1640–1660, from quahogs. He wanted $30 a bead. We negotiated a price for all 55 beads and here they are!

The Massachusetts General Court in 1637 decreed white beads pass at 6 per penny, and “black” (actually blue or purple) at 3 per penny for sums under a shilling. In 1640 they decreed white pass at 4 a penny and black at 2 a penny. They called strung wampum peage, and a single bead of wampum seawant.

Wampumpeage 1640, 1 penny, 3 pence & 9 pence.

In 1641 the Court reverted to 6 a penny. In 1648 they required the beads be strung in strands of one penny, threepence, and a shilling. A fathom of wampum was five shillings (360 beads). The word derives from the Algonquian wampi, for white, and umpe for string. The Dutch called it zeewan(t) or sewan(t).

From circa 1570, Hiawatha and the Iroquois league used wampum as a communication and ceremonial device. The name Hiawatha means "seeker after wampum". Roger Williams, the founder of Providence Plantations, said the Narragansetts invented wampum. Indians used wampum as a form of friendly greeting. The higher on the social scale they were, the more wampum they gave. Indians used wampum belts to seal treaties, settle disputes, as a memory aid in oral traditions, and sometimes as badges of office.

The Dutch on the Hudson River and Long Island spread wampum as a money equivalent throughout New England from 1620s to 1660s. Isaack de Rasiere, Secretary of New Netherland, visited Massachusetts in 1627 and introduced them to wampum.

The Dutch later traded metal awls called muxes to make wampum. These markedly sped bead production, as Indians previously used bone to drill the holes. Increased demand caused new Indian tribes to make it.

Between 1634 and 1664 the Massachusetts Bay Company traded 21,000 fathoms of wampum (equivalent to £5,250) for furs especially with the Abenaki Indians in present day Maine.

Eventually Europeans started making counterfeit wampum, especially on Long Island. The Dutch started wampum factories in Albany, the British in Massachusetts, and various Indians also set up factories. Using metal tools, they could produce it much faster. This caused wampum to lose its rarity value. By the 1660s all New England colonies stopped using wampum, because of:

- counterfeiting with metal tools
- more coins available
- more pay with other commodities
- counting beads was inconvenient.

Roanoke referred to more disc-like white beads used as ornaments and currency for the Coastal people of Virginia and North Carolina. The word Roanoke meant "things rubbed smooth by hand."

Hernando Cortez carried glass trade beads when he landed in Mexico in 1519, as did other conquistadors and evangelizing Spanish priests. The Lewis and Clark expedition carried 33 pounds of glass beads to trade with Indians. The Hudson Bay Company also used glass beads to trade with Indians for Beaver pelts. For Indians, glass beads were new. Previously they only used gold, jade, bone, turquoise, and shell. Many of these glass beads came from Murano near Venice.

Indian Trade Silver

Luckenbooth brooch from Guthman Estate. HB Co. stamp 29x41mm. Ex John Kraljevich.#1503

They call the above design the Luckenbooth brooch. The crown represented Queen Anne (reigned 1702-1714) and the two entwined hearts meant loyalty to Scotland. Britain's Union with Scotland occurred in 1707. In Scotland the design was a popular love token and betrothal symbol. British trained silversmiths like Robert Cruickshank or James Hanna may have introduced the design to Canada. Alternatively, Indians may have requested the brooch after seeing it worn by Scottish traders or settlers. One of these was worth three prime beaver pelts.

The design without the crown on top was much commoner and simply called the double heart, symbolizing friendship, a common sentiment between Indians and European traders. You can see the tiny monogram HB on the top left for Hudson Bay. The Hudson Bay post ordering the trade items would ask the maker to stamp the piece at the time of manufacture.

Early on, the Dutch allied with the Lenape tribe on the Hudson river in 1618. Later the British displaced the Dutch; and the Mohawks and Iroquois displaced the Lenape. Periodically they would meet to renew their covenant, discussing trade, military support, exchanging gifts and often partying together. They called this "brightening the Covenant Chain."

The Covenant Chain was a chain symbolizing Native American-European alliance in the 1600s and 1700s. It originated as a rope tying a Dutch ship to a large tree on the shore. This changed to an iron chain, then to a silver chain between an Indian and a European as equals.

European traders initially sought Indians on the shores of the rivers and lakes. But the fur trade drew them further inland. Woodsmen learnt from the Indians how to survive and travel in the interior. They could not afford to ignore Indian culture and became half Indian half European during their travels.

Indians had a system of gift exchange. Today, an Indian giver means someone who gives a gift expecting an equal gift back. This is offensive to Indians as it negates their system of social and political alliance making. Indians sealed treaties with gifts of wampum or other goods, which spoke stronger than words.

Indians considered gift exchanges as a way of forming alliances, which drew Europeans into their conflicts. The strongest alliance was between the Iroquois and the Dutch, and later the British, in their wars against France.

To Europeans, trade was commerce; to Indians, it was politics. Europeans catered to Indian's predilections in design and utility of gifts, but the European gift had to cost less than the beaver pelt. Actually, Indians had little use for beaver pelts except that they cashed in on European's desire to trade for them. To the Europeans it was strange to see Indians wearing their tin mirrors as jewelry, or cut up their kettles for arrow heads. No doubt Indians felt European's obsession for beaver was strange!

In French Canada, canon law decreed ecclesiastic vessels be made of silver. This was the commonest employment for silversmiths. But, from 1750 to 1820, silversmiths focused more on Indian Trade Silver (ITS). Fur traders ordered Montreal and Quebec silversmiths to make thousands of pounds worth of ITS, most commonly brooches and earrings. Other objects included small and large crosses, gorgets, arms bands, ear wheels, and wrist bands. Indians used ITS for decoration and traded it for beaver pelts. Interestingly, gorgets did not originate from Europe. Pre-Columbian Indians, like the Cherokee, Creeks and Ojibwa, wore moon shaped shell or stone objects from their necks on a leather thong.

There was competition between the French coureurs des bois, and British Americans. The French were closer to better fur trade areas, better accepted by Indians, and often intermarried them. Woodsmen often used canoes to travel. They preferred to visit populated areas to make large purchases and get back to Montreal or Quebec to save on overwintering expenses. The most traveled trails were the St. Lawrence, and Ottawa Rivers, and the Great Lakes.

Nomadic Plains Indians only got ITS with peace treaties, including silver medals. They did not partake in the fur trade like settled Woods Indians. Many Woods Indians loved to display their wealth by wearing it. When tin, brass and silver came along, it looked better than shiny shells, and they eagerly competed for it. Col. Proctor (*North American Indian Trade silver* page 21) visited an Onondaga village in 1791 and commented, "some (women)… were ornamented with so many silver trappings that one suit must have been the value of at least £30 (sterling)." That was one or two years wages for a laborer!

Some Indians felt the world was full of evil spirits who could enter any orifice. But shiny objects, initially polished shells, later shiny silver, reflected them. They became popular decorations. In the 1840s German silver replaced real silver.

The following Indians used ITS the most: Iroquois, Algonquin, Ottawa, Potawatomi, Sauk, Fox Ojibwa, Cree, Assiniboine, Huron Winnebago, Kickapoo, Delaware, Mahican, Mohawk, and Abnaki.

During the same time period as ITS, the British, French, Spanish, and United States all used silver peace medals to cement relationships with Indians, rather than for trade. The English first presented peace medals to American Indians during George I's reign (1714–1727).

George III English Peace Medal #2919

The English developed medal giving into an art form, making different sized and different metal medals for Indians of different rank. Many Indians coveted the large silver medals, which became useful tools for forming alliances. Indians wore them proudly as badges of friendship. You can imagine the effect of an Indian appearing in a European community wearing one of these medals. It proclaimed him as friendly.

John Hull was the first Boston silversmith in British America in 1635 before the ITS era (1750–1820). Only three silversmiths worked in French Canada before 1700. Carter (see references) lists 100 Canadian silversmiths in the 1700s and early 1800s. The most famous was Robert Cruickshank from Scotland (1748–1809). He settled in Montreal and hired multiple apprentices to cater to the ITS trade. They used mainly Spanish milled dollars to refine or beat into sheets.

The Ojibwa wore beaver pendants, but other Indians rarely wore silver animal effigies. French Missionaries distributed silver crosses to Indian converts, which became trade items without religious significance. They used a single barred Latin cross, a double barred Lorraine or Patriarchal cross, and the rare triple barred papal cross.

The Northwest Company (fur traders) started in 1779, based in Montreal controlled from Britain. They merged with the Hudson Bay Company (HBC) in 1821, eliminating competition. HBC

standardized its trade goods. Traders no longer had to compete with silver designs for Indians and ITS started dying out. Iroquois Indians started making their own silver jewelry shortly after 1800, also using silver coins. By the early 1900s, most Iroquois Indian silversmiths had died. Much ITS has disappeared from melting. Genuine pieces today are rare and expensive. Fakes far outnumber genuine pieces.

Mexicans introduced silversmithing to the southwest Indians, notably the Zuni and Navajo. **Fake ITS. Left bottom is called an ear wheel.**

References:

Appleton, V., Editor. *The Covenant Chain, Indian Ceremonial and Trade Silver*. National Museum of man Ottawa, Canada. 1980.
Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American coins*. Whitman Publishing, Atlanta, GA 2009
Breen, Walter H., *Complete Encyclopedia of U.S. and Colonial coins*. Doubleday Books, NY, NY 1988
Carter, W.H., *North American Trade Silver*. Hothem House, Lancaster, Ohio. 1996.
Crosby, Sylvester S., *Early Coins of America*, Published by the Author, Boston, MA. 1875
Hamilton, M.W., *Silver in the Fur Trade 1680-1820*. Martha Hamilton Publishing, Chelmsford, MA, 1995.
Mossman, Philip L., *Money of the American Colonies and Confederation*. ANS, NY, NY. 1993
Nipper, Will, *In Yankee Doodle's Pocket*. Bowmanstone Press, Conway AR. 2008
Shell, M., *Wampum and the Origins of American Money*. Univ Illinois Press, Chicago, and ANS, 2013.
Vlack, Robert A., Early American Coins. 2nd Edition. Windsor Research Publications, Inc., Johnson City, NY 1965
Yeoman, R.S., *Guide Book of United States Coins*, Whitman Publishing, Racine, WI. 1947
http://pierre-marteau.com/wiki/index.php?title=Prices_and_Wages_%28Great_Britain%29
https://ehsthelongrun.net/2017/11/07/pieces-of-eight-sailors-wages-and-trade/
https://libraryguides.missouri.edu/pricesandwages/1700s
https://fraser.stlouisfed.org/title/4126

1823

KETTLE POINTS 1650-1670 FROM DANN SITE MADE FROM KETTLES TRADED DUTCH TO SENECA

1601

Wampum peage 9 Pence, 3 Pence, and 1 Penny. from Dann Site Ca. 1687. Made 1640-1660

1503

Indian Trade Silver. Luckenbooth Brooch from Guthman Estate, ex. Kraljevich. HB stamp 29x41 mm

2919

George III Silver Indian Peace Medal (ca. 1776-1814). Adams-7.2; 78.2mm, 87.9 grams AVF

CHAPTER TWENTY-NINE
COMMON FOREIGN COLONIAL TRADE COINS

The list of trade coins which may have circulated in colonial America is almost endless. This is the list of 21 coins I made at the beginning of the book.

Spanish 6 coins

a. pistoles 1537–1786. 2 escudo pieces of Spanish or colonial Spanish origin either cobs and/or milled coinage.
a. doubloons 1537–1786. 8 escudo pieces of Spanish or Colonial Spanish origin either cobs and/or milled coins
c. Spanish pillar dollars 1732–1772
d. Spanish bust dollars 1772–1822 (the date should be within colonial period though Spanish silver was legal tender in the US until 1857)
e. Spanish Pistareens – cross 1707–1772 (worth 18 cents) or: – head 1772 on (worth 17 cents)
f. Cut fractions of pistareens and 8 reales pieces were common. Many collect 8, 4, 2, 1, and half real pieces, but pistareens were much more common.

English 7 coins

a. Guinea Charles II 1663 to George III 1792
b. Crown Charles II 1662 to George II 1751
c. Half Crown Charles II 1663 to George II,1751
d. Shilling Charles II 1663 to George III 1787
e. Sixpence Charles II 1663 to George III,1787
f. Threepence Charles II 1663 to George III,1787
g. Regal English or Irish halfpenny 1608–1791

Dutch 4 coins

a. Ducat gold 1579–1805
b. Lion dollar (Leeuwen daalder) 1601–1698
c. Riksdaler 1591–1700
d. Rider (Ducatoon) 1659–1798

French 2 coins

a. Louis d'or 1640–1794
b. Ecu 1709–1792

Portugal or Brazil 2 coins

a. Moidore 4,000 Reis 1640–1732 or fraction (2,000, 4,000, 10,000 or 20,000)
b. Joe 12,800 Reis 1722–1835 or fraction (800, 1,600, 3,200, 6,400)

I will list only silver and gold coins, as I have already described the English and Irish halfpence. The commonest circulating coins in the north were copper halfpence, and in the south were Spanish silver pistareens and their cut fractions.

Merchants used Spanish milled dollars and gold. Ordinary colonists seldom saw these. The commonest circulating gold coins were from Portugal and Brazil (a Portuguese colony).

Spanish coins

The French gave the name pistole to the Spanish two escudo piece. They also used it to describe the Louis d'or and other similarly sized European gold coins. The origin of pistole is uncertain, but may derive from the Spanish *pistola* meaning a small metal plate. Spaniards called the pistole a *doblon* (meaning two), which the English called a doubloon. But in time the word doubloon applied to eight, not two escudo coins. Today a doubloon is a quadruple pistole.

Pieces of eight were cobs before 1732. After 1732 they were crown-sized pieces called Spanish milled dollars (SMD). A cob is a lump like a cobblestone. The word may have come from the Spanish *cabo de barra*, meaning (chopped off) the end of a bar (of silver). Milled meant they put designs on the edge. In 1772 the bust SMD replaced the pillar SMD.

A piece of eight was eight reales or units of silver. The word *real* derives from the word regal. An SMD represented four day's pay for a laborer around 1700.

Sixteen reales, i.e. two SMDs, made one gold escudo, reflecting a 16:1 silver to gold ratio. The word escudo derives from the Latin scutum for a shield.

The sequence in Mexico was:

- Carlos & Juana 4 reales 1536–1557
- Undated cobs 1556–1621
- Dated cobs 1607–1732
- Pillar dollar Philip V 1732–1746
- Pillar dollar Ferdinand VI 1746–1759

- Pillar dollar Charles III 1759–1772
- Bust dollar Charles III 1772–1789 (big nose)
- Bust dollar Charles IV 1789–1808 (hook nose)
- Bust dollar Ferdinand VII 1808– (smiley)

1770 Mexican Pillar Dollar 39mm, 26.76 grams#1432

In the early 1700s, pistareens found their way to the Americas. Though denominated at 2 reales, they had 20% less silver than a regular 2 reales piece. As debased silver, pistareens would stay in the colonies as Spain refused them in payment. Pistareens first appeared as a monogram style, then in 1717 as the cross-style pistareen, then in 1778 as the head style pistareen. In a study of 199 ground find pistareens, 170 (85%) were cross style pistareens from 1717 to 1738 (CNL page 2188, see references).

1724 Cross pistareen 26.5mm, 5.17 grams#1770

While one could cut 8 reales cobs into four quarters (each called "two bits"), the irregularity of cobs made this impractical. Cutting pieces of eight into fragments started with the machine struck pieces of eight in 1732 (see SMD at top).

Cutting up coins had started earlier with pistareens. Five pistareens equaled one piece of eight, worth 54 pence. People valued each pistareen just under 11 pence (before any "crying up"). In America many people cut them along the cross to make half and quarter pistareen fragments. Thus, a half pistareen was close to sixpence, and a quarter pistareen was close to three pence. If your state had declared there would be 20 coppers to the shilling, then a quarter of a pistareen would be exchangeable for 5 coppers. If states cried up the pillar dollar to other values, the value of cut pistareens increased pari passu. Spain also struck half and quarter pistareens.

Quarter cut pistareen 1725 #2115

English Coins

Twelve copper pence made one shilling. Twenty shillings made a pound. Twenty-one shillings made a guinea. Five shillings made a crown. An SMD contained 24.8 grams of pure silver and was worth 56 English pence. An English crown had 27.8 grams of pure silver worth 60 pence.

Dutch coins

There were two Hollands; the Protestant United Provinces, today called Holland, and Catholic Spanish Netherlands, today called Belgium. These roughly crown sized silver coins all had different values. The half lion dollar was a very rare coin, although listed in the Red Book.

United Provinces crowns

- Lion dollar (40 stuivers) common in America
- Riksdaler (50 stuivers)
- Three guilder piece (60 stuivers)
- Silver Rider (63 stuivers)

Spanish Netherlands crowns (less circulation)

- Patagon Cross dollar of 48 sols
- Ducatoon of 60 sols

French Coins

I discussed these in the section on the Chameau wreck. The French system was nominally similar to British pounds, shillings, and pence. The French used livres, sols, and deniers, but debased their coins much quicker than the English. A British Elizabeth I penny had 0.46 grams of pure silver. A contemporary French Charles IX denier had a tenth of that in the 1500s.

The Louis d'or from 1640 has 6.75 grams of 91.7% gold. In 1715 weights started varying from 6.53 to 12.24 grams.

The Ecu's weight was all over the place. From 1643 to 1704, most ecus had 25.16 grams of pure silver. From 1715 weights varied from 21.62 to 28.04 of pure silver.

Portuguese and Brazilian coins

The commonest colonial gold coins were Portuguese and Brazilian. Brazil was a Portuguese colony. Their system was almost as complicated as the British!

One gold moidore was 4,000 reis. Brazil had silver and copper coins denominated in reis. Moidores came in multiples of half, one, two and a half, and five i.e. 2,000, 4,000, 10,000 and 20,000 reis. The word moidore came from the Portuguese moeda d'ouro, meaning money of gold. The 20,000 reis five moidore coin was almost two ounces of gold, made from 1724 to 1727. One of these was worth over 20 SMDs!

Then there was another system called Joes. Joao V (John) was the Portuguese king 1706–1750, whose head was on the coin. A Joe, almost an ounce of gold, was 12,800 reis. They also came in halves, quarters, eighths, and sixteenths. In New England they called it a double Joe, other colonies called it a Joe. A dobra or dobrao was the Portuguese equivalent of a doblon or doubloon, initially referring to two escudos then evolving to mean eight escudos.

How did people cope? Money changers used books called cambists, which showed pictures of all the different coins together with their weight and fineness. Merchants and money changers had scales to check weights. Many scales came with charts of coin equivalencies. They also used metal slots that just fit the coins, so they could check thickness too.

Tony Carlotto found a weight loss of 2.8% between XF and Good coins. What looks like wear is mostly the metal being moved around rather than lost metal. Money changers and merchants had to check coin weights for worn coins, and adjust their value.

Colonial cheaters would sweat coins. This meant putting them in a bag and shaking them for hours. Little chips of silver came off.

Another method was to shave off the edge of coins. Milled edges prevented this, but skilled cheaters sometimes had re-edging machines which could impart edge designs after they had shaved off part of the edge of a coin. They called the machine a Castaing machine. Erik Goldstein, the Curator of Mechanical Arts and Numismatics at the Colonial Williamsburg Foundation dubbed this process re-Castainganation!

Re-Castainganated Brazilian 6,400 reis half Joe #1504

This is a re-Castainganated Portuguese half joe I got from Erik Goldstein. Proper weight should be 14.34 grams, this is 14.07 grams — 1.8% light. The stolen gold was worth 120 reis, worth about sixpence in silver, or half a day's wages for a laborer!

References

Bowers, Q. David, Whitman Encyclopedia of Colonial and Early American Coins. 2009. Whitman Publishing, Atlanta , GA.
Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins.* 1988 Doubleday, NY.
Coins of England and the United Kingdom, Pre-decimal Issues. Spink, London, 2020.
Crosby, S. *The Early Coins of America*. Published by the Author Boston 1875.
Duplessy, J., *Les Monnaies Francaises Royales de Hugues Capet a Louis XVI*. 2 volumes. Maison Platt, Paris, 1999.
Fulghum, R.N., *The Hunt for Carolina Elephants: Questions regarding genuine Specimens and Reproductions of the 1694 token*. Colonial newsletter, April 2003. Sequential page 2415 – 2450.
Gladfelter, D.D., *A Tale of Two Elephants*. Colonial Newsletter, July 1995, sequential pages 1511 – 1514.
Hodder, M., *Norweb Collection Part I.* Bowers and Merena. October 12th and 13th 1987. Pages 357 – 362.
Kays, T.A., *When Cross Pistareen Cut Their Way Through the Tobacco Colonies*. CNL April 2001 sequential page 2169.
Krause, C., and Mishler, C., *Standard Catalog of World Coins Spain Portugal and the New World.* Krause Publications, Iola, WI, 2002.
Sedwick, D. & F., *The Practical Book of Cobs*. 4th Edition www.sedwickcoins.com 2007
Steimle, F., *The Tricentennial Review and Comments on the God Preserve Elephant Tokens*. Colonial Newsletter, April 1995. Sequential pages 1481 – 1487.
Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*.1947, 1970 and 1073. Whitman Publishing LLC Pelham, AL 35124
Yeoman, R.S. *Research Forum 2. Origin of the name Bermuda*. Colonial Newsletter. Sequential page 136 – 141. March 1965.
https://www.luciastclairrobson.com/blog/the-tuesday-club/
https://coins.ha.com/itm/great-britain/world-coins/great-britain-charles-ii-gold-guinea-1676-/a/3030-24112.s?ic4=ListView-Thumbnail-071515
https://library.unc.edu/wilson/gallery/elephant-token/
https://coins.nd.edu/ColCoin/ColCoinIntros/ElephantTokens.intro.html
https://www.pcgs.com/coinfacts/category/colonials/pre-1776-private-regional-issues/elephant-tokens-1694/807
https://www.ncpedia.org/elephant-tokens
https://en.wikipedia.org/wiki/Coat_of_arms_of_the_City_of_London
https://www.historyofparliamentonline.org/volume/1715-1754/member/herne-joseph-1682-1723
https://www.geni.com/people/Sir-Joseph-Herne-MP/6000000045000569844
By Wenceslaus Hollar - Artwork from University of Toronto Wenceslaus Hollar Digital CollectionScanned by University of TorontoHigh-resolution version extracted using custom tool by User:Dcoetzee, Public Domain, https://commons.wikimedia.org/w/index.php?curid=6234743
http://www.bl.uk/onlinegallery/onlineex/crace/p/007000000000008u00064000.html

1760

2 Escudo Cuzco 1698 ? Melgarejo Assayer. Sed-CZ-1; Ex-1715 Fleet. 16mm, 6.72 Grams UNC

2069

8 Escudo Lima 1712 ? Melgarejo Assayer. Sed-L-28; Ex-1715 Fleet. 32mm, 26.90Grams AU

540

MEXICO PILLAR DOLLAR 8 REALES. 1758 MM. KM-104.2; 39MM, 26.93GRAMS AU

1410

Mexico Bust Dollar 8 Reales. Carlos III, 1779FF. 39mm, 26.91Grams AU

2531

Cross Pistareen, Segovia, Spain. Philip V 1723 F. KM-297; 27.5mm, 5.92Grams AVF

2115 & 2256

Cut Cross Pistareens: 1/4 1725 Madrid VF. 1/8 Virginia Ground Find. F

1867

George III 1773 Guinea. S-3727; 24mm NGC EF

1737

James II Crown 1688. S-3407 38mm, 30.05 Grams PCGS XF 40

2238

William & Mary Half Crown 1689. S-3434 32mm, 14.82 Grams English VF

2237

James I 2nd Coinage 1605-6 Shilling. S-2655 29mm, 5.95 Grams English VF

1505

Elizabeth I Sixpence 1568. Bust 1 F. S-2562 25mm, 2.91 Grams English GVF

1827

Queen Anne Maundy Money Threepence 1708 S-3596 b; 18mm, 1.42 Grams English GVF

1582

AKERENDAM WRECK 1725, OFF RUNDE ISLAND, NORWAY. UTRECHT GOLD DUCAT 1724 KM-7. 23MM, 3.44 GRAMS UNC

2694

Lion Daalder Silver, West Friesland. 1644. Delmonte 836; 27.02 Grams, 40-42mm UNC

2677

Rijksdaalder 1621, Overijssel, United Netherlands. KM-13; 28.39 Gram, 41mm AU

2675

Vliegenhart Wreck 1735 off Zeeland. Silver Rider 1734, Holland, United Netherlands. KM-90.1; 44mm, 32.47Grams UNC

2315

LOUIS D'OR Aux 8 L. A La Meche Longue. LOUIS XIV 1652 Dupl-1422A. 25mm,6.68 Grams EF

2162

French Ecu Louis XVI (1774-93). Pau Mint 1785. KM-572; 41mm,-29.49 Grams NGC MS 63

1853

5 Moidores = 20,000 Reis, Minas Gerais Mint. 1725. KM-117; 38mm, ~53.78 Grams NGC AU Details

2113

12,800 Reis "JOE", Minas Gerais Mint. 1733 KM-139; 38mm, ~28.68 Grams NGC AU 55

CHAPTER THIRTY
TOKENS THAT SHOULD NOT BE IN THE RED BOOK

I have discussed coins that should not be in the Red Book, including Conder tokens, backdated Washingtonia, and Rhode Island Ship medals.

But wait! There's more! They struck these after the federal period began:

1. Myddelton Token 1796
2. Castorland Token 1796
3. New Spain Jola 1817
4. Northwest Company Token 1820
5. North American token 1781 struck 1820
6. Mott Token 1789, struck 1807–1830s

When the Mott token, collected for decades, turned out not to be colonial, the Red Book found it difficult to remove the listing. Dealers and collectors would say, I have spent lots of money buying these; it is not fair for you to de-list the coin!

1. Myddelton Token

Sylvester Crosby in his *Early Coins of America* said in 1875, "in beauty of design and execution, the tokens are unsurpassed by any piece issued for American circulation."

Myddelton mule with copper company #2756

Philip Parry Price was born Price, but later added the surname Myddelton. He emigrated to America where he acquired land, then returned from Philadelphia to London in 1796 as a physician. He advertised during 1795–1796 in many English newspapers, that he owned land in northern Kentucky in the Ohio River valley (see map opposite).

In January 1796, he engaged Matthew Boulton to strike coins. Myddelton specified the motifs and the legend "British Settlement Kentucky and Payable by P.P.P. Myddelton."

Boulton hired Conrad Küchler to engrave the dies. Küchler also engraved the Washington seasons medals. Boulton then delivered 53 silver specimens in March 1796. He charged two shillings and sixpence for each token, each of which contained two shillings of silver. The Tower Mint had never struck the florin denomination (two shillings) at the time.

Ohio River Valley in Colonial Times

Myddelton returned 46 of them, saying there was a misunderstanding. He really wanted a ton of copper specimens to take to America for small change in his colony. Boulton struck 11 brown, bronzed copper specimens for sixpence each. He never did strike the ton of coppers.

By then Myddelton had attracted 1,200 potential emigres. Days before he was due to sail to Nantucket, British authorities indicted him with enticing English artisans to emigrate.

The judge, Sir James Mansfield, convicted him to a year in prison and a £500 fine. Unable to pay the fine, Myddelton stayed in prison until 1799.

He then got a job as a physician to the Hanover Park mental asylum in Carlow, in southeast Ireland. There he leased a castle which he tried to renovate, dynamiting part of the Norman structure in 1814. This ended up destroying half the building! He sounds like he may have had bipolar disorder.

2756

MYDDELTON TOKEN MULE WITH COPPER CO. UPPER CANADA, 1796. W-8910; 28.5 MM NGC PF 61

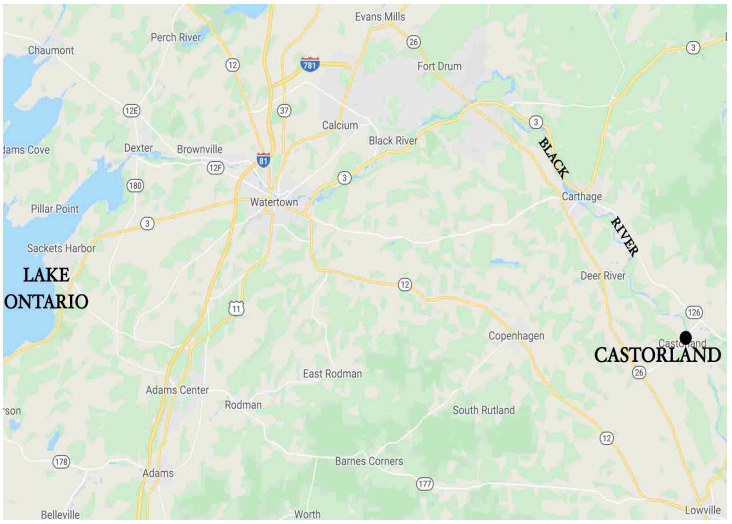
Richard Margolis (see references) said Boulton struck the Copper Company mules as early as 1796, not as rare mules for collectors but as examples of his ideas on proper designs for halfpenny tokens.

The obverse shows Liberty welcoming two girls presented by Hope (with her attribute, an anchor). At Liberty's feet are a sapling and cornucopia, signifying growth and plenty.

The reverse of the original token showed a dejected seated Britannia with spear reversed (referring to the British defeat at Yorktown). She treads on the scales of justice on the ground and looks at a liberty cap on the ground, ready to grow. The British would have considered this motif seditious. The Canada mule reverse has an inscription COPPER COMPANY OF UPPER CANADA, with a legend ONE HALF PENNY.

Why the Red Book included a 1796 token about a failed Englishman's venture to settle America, I do not know. It certainly did not take place in the colonial era.

2. Castorland Token



Castorland on Black Rivers in New York State, Courtesy google maps.

Pierre Chassanis, a Frenchman, bought 630,000 acres of maple forest in upstate New York in 1792. He paid "52,000 Louis sterling" and planned on subdividing it into 4,000 farms of 50 acres on the Beaver River. This flows into the Black River, which in turn flows into Lake Ontario. Castorland is about 30 miles due east of Lake Ontario.

Chassanis started La Compagnie de New York, with himself as head of a government with a constitution, and six commissaries. Two of them would live in Castorland, and four in Paris.

Castorland Jeton. #354

He paid directors two silver jetons for attending assemblies to discuss affairs of the company. Each jeton weighed half an ecu, struck at the Paris Mint in 1796. Chassanis had them designed by Benjamin Duvivier, medalist to the King. Duvivier also engraved the Washington before Boston medal and several other Comitia Americana medals. Duvivier was himself one of the company's stockholders. Bowers said they intended the jetons to circulate as half dollars. However, they weighed 14.74 grams; the half dollar weighed 13.48 grams (9% less).

Pierre Simon Benjamin Duvivier

The company started up to help emigrants who wanted to leave France during the Reign of Terror from 1792 to 1794. The Revolutionary Tribunal arrested over 300,000 people, and executed 17,000, mainly aristocrats and their sympathizers. Another 10,000 died in prison without trial. The kangaroo court offered no due process.

354

1796 Castorland Jeton Paris Restrike Breen-1070; 32.5mm, 13.62 Grams UNC

The jetons obverse showed a female allegory with a crenelated crown, either representing Marianne (allegory of France), or a new allegory of Castorland. The legend reads FRANCO-AMERICANA COLONIA (Franco-American Colony.) In the exergue is CASTORLAND. Castor is Latin for beaver; thus, this was the land of beavers — certain to attract Frenchmen who knew how expensive beaver furs were.

The reverse shows an allegory, perhaps Ceres, Goddess of Agriculture. She stands holding the horn of plenty in her right hand, and a tapping screw for maple trees in her left hand. On the ground is a sheath of grain and a scythe, representing agricultural plenty. Syrup flows from a tap in the tree into a bucket. In the exergue is a beaver. A picture is worth a thousand words! The legend reads, SALVE MAGNA PARENS FRUGUM, Latin for Hail, great mother of crops. Walter Breen says this is from Virgil, making the full meaning "Hail, great Saturnian land, mighty mother of crops and men."

The original silver jetons had reeded edges and weighed around 15 grams. US half dollars then weighed 13.48 grams and contained 12 grams of pure silver. One of the Castorland families left a hoard of 14 original pieces, discovered in the late 1800s. Bowers says 30–60 exist, many worn. They also struck a few copper and brass pieces.

The Paris Mint kept the dies and made many restrikes:

- first restrike buckled at PARENS 12 grams reeded edge
- second restrike bulged at PARENS, die crack, 11.5 grams ARGENT on edge
- third restrike copy die ARGENT on edge with or without reeding
- later copy dies ARGENT and rooster on edge pre 1821
- same with anchor on edge 1822–1842
- same with ship's prow on edge 1843–1845
- same with hand on edge 1846–1860
- same with bee on edge 1860–1879
- same in proof cornucopia on edge 1880–1897
- same with no symbol on edge 1898–1920
- same in matte with cornucopia 1921–present

The colony fell on hard times. Surveying the plots was inaccurate. Epidemics killed off most of the colony's cattle in 1794–1796. Harsh winters caused many to abandon their land and move to Louisiana, or back to France.

Someone also stole the company's funds in 1796. The main suspect was Rudolph Tillier, the colony's trustee. Gouverneur Morris, as assistant superintendent of finance, sued Tillier, who fled from Paris to French Louisiana. Still in France, Chassanis never got his money back. The company dissolved in 1814. What started as a group of moneyed men trying to escape the Reign of Terror ended up in disaster.

3. Texas Jola

Why the Red Book considered 1817 the US colonial period, I have no idea. Texas joined the Union in 1845. But, by the same token (forgive the pun!), Hawaii joined the Union in 1959, and the Red Book does not list Hawaiian coins as colonial. To me, the Texas Jola is not a colonial American coin. This is why Q. David Bowers cleverly titled his book *Colonial and Early American Coins!*

4. Northwest Company token

Northwest Company Token 1820. #687

Again, I do not understand why these tokens qualify as colonial. The US and Britain jointly occupied Oregon Country from 1816 to 1846. In 1848 it became a territory then in 1859 a state. Like Hawaii, I do not consider what happened before its statehood "colonial America".

Nevertheless, guided by the Red Book, I never thought about these distinctions. So, here is some information about it. Much of this information applies also to the section on Indian Trade Silver.

687

1820 Northwest Company Token Breen-1083; 29mm, 8.39 Grams F

Fort Vancouver $1/2 US Commemorative#1180

Dr. John McLaughlin (above) was born 1784 in Rivere de Loup, Lower Canada, and apprenticed aged 14 to a Quebec physician. He studied in Paris and Edinburgh, and at 19 became a surgeon for the North West Company (NWCo), working at Fort William, on Lake Superior. Aged 30 he became a NWCo partner and gave up medical practice for the fur trade. The NWCo competed with the Hudson Bay Company (HBC). At the time, the Pacific Northwest was jointly occupied and disputed territory between America and Britain. One could exchange one of these tokens for one beaver pelt. Almost all known specimens are ground finds i.e. corroded brass, and piered..

In 1821, McLoughlin traveled to London representing NWCo. HBC then bought out NWCo., so he now worked for HBC. Aged 42 in 1825, he established the new Fort Vancouver for HBC, controlling all of HBC in Oregon Country (i.e. the Pacific Northwest) until 1846. The Oregon treaty of 1846 established the 49th parallel as the border between the US and British Canada (see map below).

Map of Pacific Northwest jointly occupied by US and Britain. From Wikipedia

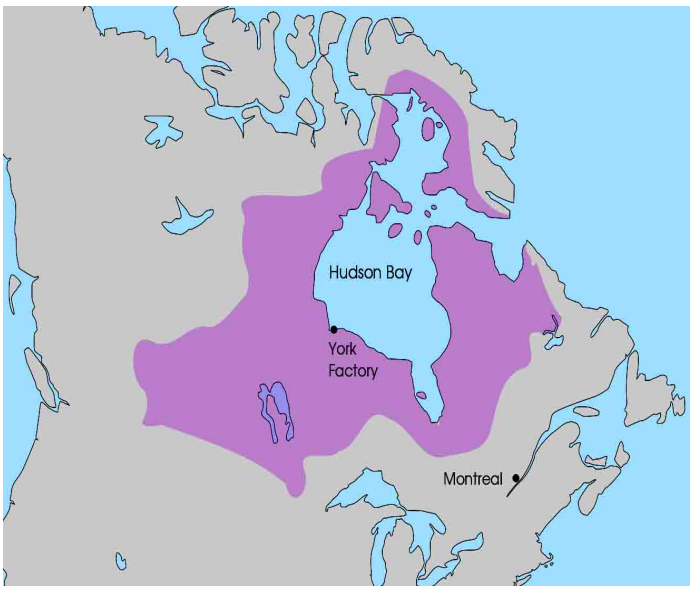
Fort Vancouver was home to around 1,000 whites, who traded with 100,000 Native Americans. McLoughlin was the Chief Factor (i.e. the top official in HBC, a factor in those days meant a merchant's agent). He was an authoritarian ruler. They called him the "King of Old Oregon". For twenty years there was no fighting between the settlers and Native Americans, largely because of McLoughlin.

In 1842, he resigned and founded Oregon City (now 12 miles south of Portland, Oregon). To this day Oregon's nickname is "Beaver State".

The word Vancouver comes from Captain George Vancouver (1758–1798), who sailed with Captain James Cook on his first and second voyages. Vancouver explored the Pacific Northwest for the British in HMS Discovery. There are two cities named after Vancouver: one is in British Columbia, Canada, and the other is in Washington State, USA — 300 miles apart.

The Hudson Bay Company (HBC)

Founded in 1670, the Hudson Bay Company was once the largest English company in North America. They originally called it the "Governors and Company of Adventurers of England Trading into Hudson's Bay". What a mouthful! It became immensely wealthy by hiring fur trappers. HBC once controlled the largest land mass in North America called Rupert's land (15% of present day North America — see below). From York Factory on Hudson's Bay it controlled North American fur trading for hundreds of years with a vast network of trading posts.



Original Land Grant to HBC – "Rupert's Land"

In 1779, other traders founded the NWCo in Montreal (controlled from Britain). In 1821 the British government forcibly merged NWCo with HBC. They reduced 175 posts to 52 for efficiency. Employees did not share in HBC profits until after the merger. A pretty modern business model! HBC trade silver stopped after their 1821 merger. They then traded wool blankets (called HB point blankets) with Native Americans for beaver pelts.

Sir George Simpson directed HBC after the merger from 1826 to 1860. HBC had 25 Chief Factors (McLaughlin was one) and 28 Chief Traders, all of whom shared in company profits. They had a hierarchy with officers investing to enter the company. A Chief Factor's average income was £720 a year, when a laborer made £20 a year.

McLaughlin discouraged settlers to keep a monopoly of trade with Native Americans. But in 1838 settlers to the West started trickling in along the Oregon Trail. In 1843 the first successful large wagon train reached Oregon, bringing around 1,000 settlers into the Willamette valley. In 1846, the Oregon treaty (settling competing American and British claims to the Oregon Country) pushed HBC out of present day Oregon and Washington states.

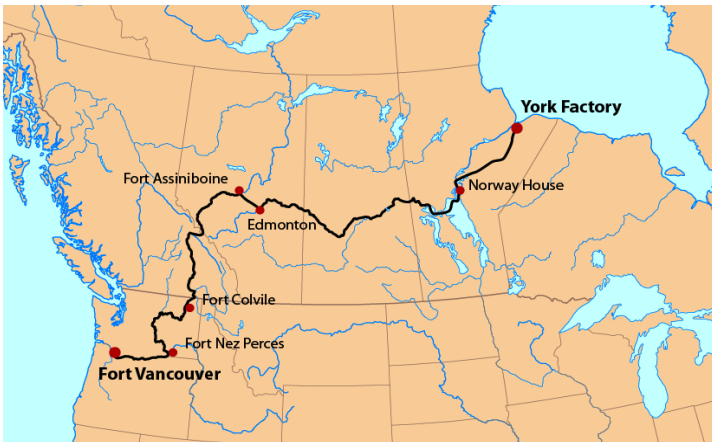
In 1869, HBC refused a US offer of $10 million for their land. Instead, they transferred Rupert's Land back to the British government, who in turn gave it to Canada.

Today HBC is a retail company based in Toronto. In 2012, they had an IPO. The following year they acquired Saks Fifth Avenue. They also own Lord and Taylor. In 2020 their shares traded around $8, with a market capitalization of $2 billion. Very few companies last 350 years!

Fort Vancouver

McLaughlin established this in 1825. It relocated in 1829 and was the headquarters for the Western HBC. In 1866 it burned to the ground. Present day buildings are reconstructions, operated by the National Park Service.

Yearly, trade goods and supplies arrived from London via the Pacific, or overland from the yearly York Factory express (see map above) to the Fort. In its heyday Fort Vancouver had 34 outposts, 24 ports, and six ships.



Route of HBC York Factory Express, 1820s-1840s. Modern political boundaries shown. From Pfly.

Fort Vancouver 1845 Painting by Lt. Henry Warre

HBC Competitors were the NWCo, and the Pacific Fur Company of John Jacob Astor. In 1818 an Anglo-American treaty made the area "free and open" to English and American people, but in 1846 the Oregon treaty excluded the British.

The fort was 750' by 450' with 20' high palisades. It had 24 buildings and the luxurious Chief Factor's residence. Outside were 60 other homes and gardens, fields, and a shipyard. Within the fort grounds they kept a one year supply of food in case the yearly supply ship or wagons did not reach them.

National Park Service painting of Fort Vancouver by Richard Schlect

The painting opposite shows the fort palisade enclosing buildings, and other buildings and gardens outside the fort. In the background is the Columbia River. The National Park Service says Fort Vancouver National Historic Site is an oasis of green space and history in the midst of the bustling City of Portland, Oregon.

Beaver fur - what was the big deal all about?
They felted early beaver hats from the beaver's underbelly fur. Felting is done by mixing fibers, heating, wetting, then pressing them. Animal fur has microscopic barbs which lock together with heat and moisture. Beaver fur was number one because it had more of these barbs than other fibers.

Beaver felt hats were popular between 1550 and 1850 because you could steam them to make various shapes. They were virtually waterproof and lasted five to ten times as long as wool felt. Beaver felt went out of fashion around 1850 when black shiny silk top hats came into fashion. Today the most expensive western hats are 100% beaver felt. Look inside on the head band: if it says 1000X it means 100% beaver felt, if it says 500X it means 50% beaver felt. A 1000X hat will often cost thousands of dollars.

Portrait of John Jacob Astor by John Wesley Jarvis, circa 1825.

John Jacob Astor was the American equivalent of HBC. He was born Johann Jakob Astor in Walldorf, Germany (guess who they named the Waldorf-Astoria Hotel after?). In 1784 at 20, he emigrated to New York City to join his brother's butcher shop. A serendipitous meeting with a fur trader on his ship over motivated him to buy hides from Native Americans, process them, and resell them.

He contracted with NWCo in 1790 and shipped furs from Montreal to Europe. His agents were ruthless. He established the American Fur Company (AFC) in 1808 but during the 1812 war switched to opium trading. In 1817 US Congress barred foreign fur traders. His AFC then bounced back, dominating trading around the Great Lakes.

In 1830, Astor foresaw the decline in fur trade and rise in New York real estate. He invested his profits in New York City real estate. When he died in 1848, he was the first American multimillionaire, worth $20 million.

Estimates for the top five wealthiest Americans ever are inexact, because of different inflation indices. But here is one approximate list in today's values: Rockefeller $340B, Carnegie $310B, Ford $190B, Vanderbilt $155B, Astor $130B, Girard $110B. In 2020 Bill Gates and Jeff Bezos were worth about $110 billion each.

5. North American Token

North American Token #504

Montroville Dickeson in his 1859 *American Numismatical Manual* described the North American Token (NAT). He said, "undoubtedly originally intended for a currency. It had the recommendation of… a female, who from the accompaniment of a harp, must have been somewhat musical; and for a legend, commerce, exemplified by the figure of a brig." The allegory of Hibernia totally escaped him!

504

NORTH AMERICAN TOKEN Backdated from 1820. Breen-1144; 27.7mm, 7.36 Grams VF

Camac, Kyan & Camac Token 1792, courtesy of Heritage Auctions, HA.com

However, collectors of Conder tokens knew D&H Dublin #29–#268 tokens had the same obverse female with harp, advertising the company Camac, Kyan and Camac (above). So numerous were the varieties (240) that D&H classified them by numbers of harp strings, which started with five strings and ended with eleven!

This Camac token first appeared in 1792, leading numismatists to suspect the NAT used the same punch and backdated the token. You can see the punch on the Camac, Kyan and Camac token opposite with the NAT below.

Many of these found their way to the Canadian border. We now think William Mossop Jr. the original engraver of the 1792 tokens engraved these.

Canadian coppers with similar devices circulated bearing the dates 1820–1833. Mossop cut the dies deliberately in low relief to simulate a circulated coin. Researcher Douglas Winter punch linked the NAT to other Dublin pieces dating 1810–1820 and suggested they issued them 1817–1819. He suggested the backdate of 1781 reminded Americans of Britain's defeat at Yorktown.

During the War of 1812, the Philadelphia mint ran out of Boulton and Watt large cent planchets. In 1812 they struck a million large cents, in 1813 418,000, in 1814 357,830, in 1815 none. Finally, at the end of 1816, Boulton and Watt shipped more planchets.

During this coin shortage, New York and Philadelphia merchants imported tokens including the backdated 1783 Washington pieces and the North American Tokens. A century ago collectors knew no better — so if it is okay to include the backdated 1783 coppers as colonial then it must be okay to include NATs!

6. Mott Token

1789 Mott Token. #772

As late as Walter Breen's 1988 *Complete Encyclopedia of US and Colonial Coins,* he wrote the Mott was the first American merchant's advertising token in 1789. Believing the original date, he reverse engineered: the eagle was the prototype for federal gold coins. He suggested they circulated as underweight coppers until the 1789 copper panic. Then they must have struck thick flan varieties after 1793 to pass as cents! The rarer thin flan pieces weigh 7.0–7.91 grams, and the thick flans weigh 10.6–11.08 grams. Breen did not mention that 1793 cents weigh 13.48 grams!

Most coins have a die cud by the top left of the clock which makes the reverse eagle details strike up poorly. The obverse shows a clock with the legend MOTTS, N.Y. IMPORTERS, DEALERS, MANUFACTURERS OF GOLD, SILVER WARES. The reverse shows an eagle imitating the reverse of 1807–1908 federal gold coins (the quarter, half and whole eagles). The legend reads, CLOCKS, WATCHES, JEWELRY, SILVERWARE, CHRONOMETERS. 1789.

772

1789 Mott Token Thick Planchet. Breen-1020; 27mm, 10.82 Grams VF+

In 2009 a horologist, Tom Brown, contacted Louis Jordan, at Notre Dame University showing a watch case with a repair paper from Mott. It read: JAMES S. MOTT, son of Jordan Mott, established 1789, clock and watchmaker, Pearl 266 Street, corner of Fulton Str. New York. This established that Jordan Mott started in 1789.

Then numismatists had a change of heart! Someone found the token struck over an 1837–1839 large cent. This observation, linked to the Reich-like reverse eagle, suggested they struck the Mott token between 1807 and 1839. They conjectured they were celebrating a 50th anniversary.

However, no one has ever seen the overstrike on the large cent. Further, the shield on eagle design is not original. It first appeared on the Great Seal of the United States in 1782. John Reich could have copied that, or copied the Mott token. Or the Mott token could have copied John Reich.

The fabric of the piece could have been American Hard Times era made in Troy, New York, or British contemporary. Angel Pietri, in the C4 Newsletter (Fall 1998, Vol 6 #3 page 25) analyses whether the small population of New York City in 1789 would have made it reasonable to omit an address on the token. New York City population in 1790 was 30,000. Sounds like even back then an address would have been helpful! The New York directories list William and John Mott from 1787 to 1824, as grocers then after 1789 as merchants. The 1830–1831 directory lists Mott & Co under William Mott of Pearl Street, then Ann Mott, widow of John Mott.

In 1800 a trade directory lists **Jordan** Mott as a watch maker. The New York directory first lists Jordan Mott as a watch maker in 1796. He had three children who became watch makers. In 1810 he advertised in the New York directory "… CLOCKS, GOLD and SILVER WATHCES, JEWELLRY and SILVER WARE" — similar wording to the token.

Pietri pointed out that Jordan Mott became 21 in 1789 when contemporary rules allowed Jordan to practice independently. We must let the obsession with a 50th anniversary go. It is another example of supposition morphing into fact. The token likely commemorates Jordan (not William and John) Mott's independence as a watchmaker apprentice and struck somewhere between 1809 and 1825.

References

Bason, A. A., *Communion Tokens of the US.* Self-published, Greensboro N.C., 1989

Bowers, Q. David, Whitman Encyclopedia of Colonial and Early American Coins. 2009. Whitman Publishing, Atlanta , GA.

Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins.* 1988 Doubleday, NY.

Crosby, S. *The Early Coins of America*. Published by the Author Boston 1875.

Margolis, R., *Mathew Boulton, Philip parry Price Myddelton, and th Proposed Token Coinage for Kentucky*. CNL December 1999. Sequential page 1991-2024

Mossman, Philip L., *Money of the American Colonies and Confederation*. ANS, NY, NY. 1993

Nipper, Will, *In Yankee Doodle's Pocket*. Bowmanstone Press, Conway AR. 2008

Vlack, Robert A., Early American Coins. 2nd Edition. Windsor Research Publications, Inc., Johnson City, NY 1965

Yeoman, R.S., *Guide Book of United States Coins*, Whitman Publishing, Racine, WI. 1947 and 2020

https://www.nps.gov/fova/planyourvisit/bake-house.htm

https://upload.wikimedia.org/wikipedia/commons/b/b3/Dr._John_McLaughlin_%283641697488%29.jpg

By Lt. Herny Warre - https://oregonhistoryproject.org/articles/historical-records/drawing-of-fort-vancouver, Public Domain, https://commons.wikimedia.org/w/index.php?curid=1047701

https://en.wikipedia.org/wiki/Fort_Vancouver#/media/File:Fort_Vancouver_1845.jpg

https://en.wikipedia.org/wiki/Fort_Vancouver#/media/File:Ft._vancouver.jpg

https://upload.wikimedia.org/wikipedia/commons/c/cb/Oregoncountry2.png

By Pfly - Own work, GFDL, https://commons.wikimedia.org/w/index.php?curid=3836354

https://en.wikipedia.org/wiki/Fort_Vancouver#/media/File:York-Factory-Express.png

https://en.wikipedia.org/wiki/Fort_Vancouver#/media/File:Fort_Vancouver1859.jpg

By BlankMap-USA-states-Canada-provinces.svg: Lokal_ProfilWpdms_ruperts_land.jpg: en:User:Decumanusderivative work: Themightyquill (talk) - BlankMap-USA-states-Canada-provinces.svgWpdms_ruperts_land.jpg, CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=12853860

https://en.wikipedia.org/wiki/Hudson%27s_Bay_Company#/media/File:Ruperts_land.svg

By John Wesley Jarvis - EQHpf7734cswjA at Google Cultural Institute maximum zoom level, Public Domain, https://commons.wikimedia.org/w/index.php?curid=21870950

https://en.wikipedia.org/wiki/John_Jacob_Astor#/media/File:John_Wesley_Jarvis_-_John_Jacob_Astor_-_Google_Art_Project.jpg

CHAPTER THIRTY-ONE
LITTLE USED PIECES IN COLONIAL AMERICA

I will discuss the following pieces:

1. 1616 Hogge Money
2. 1668 New Yorke Token
3. 1694 Elephant tokens
4. 1714 Gloucester Token
5. 1760 & 1789 Florida 4 reales Proclamation pieces
6. 1790 Albany Church Penny

1. Hogge Money

For 70 years, from 1947 to 2016, Sommer Island coins were the first entry in the Red Book. Now thankfully, the first colonial coins in the Red Book are common foreign coins used in Colonial America.

I used to think, what does Bermuda have to do with colonial American coins? Actually, quite a bit. If you had asked any European about the American colonies, they would have assumed you were talking about the West Indies. Bermuda is not strictly part of the West Indies.

The West Indies were important for the triangular trade. England sailed to West Africa. West African chiefs sold slaves, whom the English transported to the West Indies, to cultivate sugar cane. Sugar and rum returned to England. The trade was so lucrative; mainland America was hardly even in the equation!

Bermuda was a stop-off point for early British ships coming to the Caribbean or mainland America.

Initially, Europeans enslaved Native Americans, but they died from disease and abuse. England sent Irish slaves to the West Indies. They also died from disease, heat exhaustion and abuse. It was only the 3.5 million African slaves who could tolerate the heat and survive disease (though not the abuse) in the Caribbean.

The problem with collecting Sommer Island coins is that they look like poop and cost a fortune! The coin on the next page sold for $43,000! But, no matter, numismatists know their devices well and have made modern reproductions. These are what I collect!

Walter Breen says Juan de Bermudez first saw Bermuda in 1505 and was later shipwrecked there en route to Cuba in 1532. His boats contained menacing looking black hogs who swam ashore and flourished, free from predators, becoming an important food source, a century later.

Louis Jordan in the Colonial Newsletter (sequential page 2465), updated the story. He wrote:

"Bermudez commanded the ship *La Garza*, which was transporting African slaves to work in the New World copper mines. Soon thereafter, Captain Gonzalo Fernandez de Oviedo y Valdés recorded in his *Historia general y natural de las Indias*, that while he (Oviedo) was anchored off the shore of Bermuda in 1515, he issued orders that some pigs be transported from his ship to the island. Oviedo anticipated the pigs would multiply and thereby provide a source of food for future transatlantic expeditions."

In 1609 Sir Thomas Gates and Sir George Somers sailed aboard *Sea Adventure* to Virginia. Hurricanes shipwrecked their boat on Bermuda's reefs. Marooned in Bermuda, they spent a year rebuilding their ships. They sailed in their two new cedar ships *Deliverance* and *Patience*, leaving several men behind to claim Bermuda for England.

Shakespeare's *The Tempest* recounts Sommer's trials and tribulations during the journey. The first performance was 1611.

The Earl de la Ware, Governor of Virginia, (and from whom the name Delaware would later derive) persuaded Sommers to return to Bermuda with provisions. Sommers died in Bermuda in 1611, they named the island after him as well as Saint George Town in Bermuda. Modern day custom is to spell Somers as Sommers. His name ends with "s" but the coins lack the "s".

Bermuda then became part of the Virginia Colony of London, i.e. part of colonial America.

In 1612, Richard Moore (made Governor of the Island by King James I) landed there with 60 men. Three years later, a peculiar set up followed: six rotating governors each ruled for one month each. This weirdness failed and in 1616 Governor Daniel Tuckar (a Virginia planter) arrived, proving even more tyrannical.

In 1615 the Crown granted Bermuda a Royal Charter, including the right to coin money. After that, Bermuda became part of England. It was not part of the Virginia Company i.e. no longer part of colonial America. So Hogge money was English, not colonial American. Did it circulate in Virginia? Insignificantly or not at all. Tuckar

ordered Hogge money struck on brass planchets, some with light silvering. They were tokens of 2d, 3d, 6d, and one shilling. Thick and thin planchets exist. The coins appear hammer struck.

It is possible the coiner was Charles Anthony, who was Chief Engraver of the Tower Mint, who at the time bought a share in the Sommer Isles Company. He died a few months later in 1615, and his son Thomas took over as engraver. The dies do not reside in the Royal Mint, so if the Anthonys made the coins they may have done so outside the Mint. This is all conjectural.

The weights of the coins vary widely, making it difficult to be sure which were thin planchet and which were thick planchet coins. Some suggest they made two batches, others three.

After the first Virginian tobacco harvest in October 1615, a lot of tobacco reached the island. The supply ship *Diana* arrived in Bermuda in January 1616. Rather than bringing the goods to the company storehouse, they sold them to the colonists for tobacco. Tobacco then became the preferred medium of exchange, and the colonists stopped using Hogge money. After this they retired the tokens.

Capt. John Smith, wrote *Virginia, New England and the Summer Isles* in 1624. In it, he said the hogs represented the abundance of the animals on the island, and the ship represented the *Sea Adventure*. Snelling in 1762, the first writer on these coins knew only of a single Bermuda shilling. Crosby knew of four coins. Even today these are rare coins.

The silver surface washes have long since disappeared with the corrosive sea air. Most of the coins are corroded ground finds.

Modern copies satisfy collectors. In the 1850s, Dickeson made non-deceptive struck copies.

In 1997 the Bermuda Monetary Authority (BMA) issued "Coins of Bermuda" which lists types. Known examples from Whitman's Encyclopedia of Early American Coins are:

2d	BMA 1	5-8
	BMA 2	5-8
3d	BMA 1	8-9
	BMA unl	1
6d	BMA 1	17-31
	BMA 2	9-16
12d	BMA 1	33-64
	BMA 2	5-8
Total known		85 – 145 specimens

Numismatist, Jeff Lipsky, described 50 of these coins in Bermuda museums, leaving only 35-65 for collectors.

Typical Sommer Islands Shilling
Courtesy of Heritage Auctions HA.com

Three cast copies of Hogge money follow, then two fantasies struck from Dickeson dies (rarer than Hogge money!). Some have commented that pellets at the base are secret marks, others that they represent, flowers, etc. Bowers' colonial book has a great section on these copies.

References

Bowers, Q. David, Whitman Encyclopedia of Colonial and Early American Coins. 2009. Whitman Publishing, Atlanta , GA.
Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial Coins.* 1988 Doubleday, NY.
Crosby, S. *The Early Coins of America*. Published by the Author Boston 1875.
Jordan L, Somer Islands "Hogge Money of 1616: The Historical Context. Colonial Newsletter August 2003, sequential page 2465.
Kupperman, K.O. Editor. *Captain John Smith*. Institute of Early American History and Culture. University of North Carolina Press., Chapel Hill. 1988
Lipsky, J. Sommer Islands Sojourn. C4 Newsletter Summer 2001 p 17.
Smith, John. *Virginia New England and the Summer Isles.* 1624.
Spiegel, M. The Somers Isles Hogge Money: A Theory About Their Mysterious Origin. Colonial Newsletter. August 2009. Sequential page 3435.
Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*.1947, 1970 and 2020. Whitman Publishing LLC Pelham, AL 35124
Yeoman, R.S. *Research Forum 2. Origin of the name Bermuda*. Colonial Newsletter. Sequential page 136 – 141. March 1965.

CAST COPY Sommer Island #d 1616 Hog / Ship. Copy of Breen 5; 20.6mm, 5.40Grams EF

681

Cast Copy of Sommer Island 6d. Hog / Ship, Copy of Breen 4; 25.2mm, 7.60Grams EF

682

CAST COPY of SOMMER ISLAND 12 d, Hog / Ship. Copy of Breen 2; 28.5mm, 4.87Grams EF

549

DICKESON BRASS NON-DECEPTIVE STRUCK COPY OF SOMMER ISLAND 12D. W-15400; 32MM, 12.62GRAMS BU

355

Kenney-1 brass, W-15400. 17 - 32 known

DICKESON WHITE METAL MULE, PHILADELPHIA -1870, OF 1616 SOMMER ISLAND SHIP & WASHINGTON. W-15485; 32MM, 16.06GRAMS BU

793

Kenney Muling-2 – White Metal, W-15485. 3-8 known.

2. New Yorke Token

Crosby knew of only 3-4 of these tokens, and first read about it in the *Historical Magazine* for 1861. The spelling YORKE appears from 1664 to 1710. Before 1664, New York was New Amsterdam. English King Charles II named the city after his brother, the Duke of York, who became James II in 1685.

The obverse shows Cupid pursuing Psyche under a grove of palm trees. The allegory of Psyche's attribute is a butterfly, which stands on her right shoulder. The allegorical pairing of Cupid and Psyche depicts love involving the body and soul. The butterfly symbolizes transcendental life after death. John Kleeberg said this was Cupid ensnaring Psyche or bringing her into the lace of love. This is a wordplay (or rebus) on the name Lovelace. Francis Lovelace was the second governor of New York 1668-1673.

PORTRAIT OF GOVERNOR FRANCIS LOVELACE. *Courtesy of Pennsylvania-German Society.*

The reverse shows a spread-winged eagle, resting on an oak branch, with the legend NEW YORKE IN AMERICA. The eagle was Lovelace's family seal, which he used as a seal on official New York documents until the Duke of York issued an official seal in 1669. The Red Book says there is no evidence these farthing-sized tokens circulated in America!

During the 1600s, England and Holland were fighting for commercial hegemony. A series of wars (Anglo-Dutch Wars) between the two started in 1652. In 1664 Charles II wanted to grab New Amsterdam from the Dutch. This was because the Dutch controlled the Hudson and Delaware Rivers which bounded their land, and were the key to the Indian beaver trade.

The Duke of York sent three or four ships carrying 300-450 soldiers to take New Amsterdam. Richard Nicolls and three others led the expedition. Peter Stuyvesant, the New Amsterdam Governor, realized he had insufficient troops to defend himself against the British, and surrendered to Nicholls. Nicholls became the first Governor of New York 1664-1668. Charles II gifted the colony to his brother, James the Duke of York.

The second governor, the Royalist Francis Lovelace, lived in Virginia during the interregnum to avoid imprisonment by Cromwell. Virginia Governor, Sir William Berkeley, dispatched him to France to tell exiled King Charles II, that Cromwell's parliamentary commissioners had seized Virginia. In 1659, after Cromwell died, Lovelace returned to England. The commonwealth imprisoned him in the Tower of London. Months later, when Charles II regained the throne, he released him. The Duke of York appointed him the second governor of his colony in 1668 .

Lovelace bought Staten Island from the Indians, prepared military defenses, and ran a tavern called the King's House, also called Lovelace Tavern.

While visiting John Winthrop Jr., Connecticut Governor in 1673 to discuss a postal system between New York and Boston, the Dutch re-took New York. Britain removed Lovelace from office that year and sent him home, where he fell into debt. The Duke of York confiscated his estates and imprisoned him in 1675. He died later that year.

A Dutch naval captain, Anthony Colve, ruled the colony from 1673-1674. The colony returned to Britain under the Treaty of Westminster in 1674, ending the First Anglo-Dutch War. Edmund Andros took over as third British Governor from 1674 until 1683. The Crown knighted him and sent him back to manage the unpopular Dominion of New England 1686-1689.

2924

New Yorke Token, Brass. W-1705. 21mm PCGS F15. 17 Known

Louis Jordan said Francis Lovelace had the trade token made in England as brass and pewter patterns to use in New York. One wonders whether the Dutch may have used them in his Tavern. The Tavern burnt down around 1706. Archeologists excavated it around 1979-1980, I could find no mention of the tokens in the excavations. The Tavern was 25 by 40 feet, with a kitchen in the rear, on Pearl Street.

The token looks similar to other English tokens of that era. Jordan speculated that regular issues would have replaced the reverse arabesque at 11 to 12 o'clock with a date.

The Dutch re-occupation from 1673 to 1674 aborted regular token production. Most pattern specimens are quite worn. Dutchmen kept samples of them. Interestingly, many of the pedigrees for the token go back to Holland and the German States. Seventeen are known in brass, and four in pewter.

References

Bowers, Q. David, Whitman Encyclopedia of Colonial and Early American Coins. 2009. Whitman Publishing, Atlanta, GA.

Breen, W. Walter Breen's Complete Encyclopedia of US and Colonial Coins. 1988 Doubleday, NY.

Yeoman, R.S., Ed. Bressett, K. Guide Book of United States Coins.1947, 1970 and 2020. Whitman Publishing LLC Pelham, AL 35124.

https://en.wikipedia.org/wiki/Francis_Lovelace#/media/File:FrancisLove
lace.jpg
By Contemporary portrait - http://threeriversshms.com/knittlech2.htm, Public Domain, https://commons.wikimedia.org/w/index.php?curid=4235992

https://coins.nd.edu/ColCoin/ColCoinIntros/NewYorke.intro.html

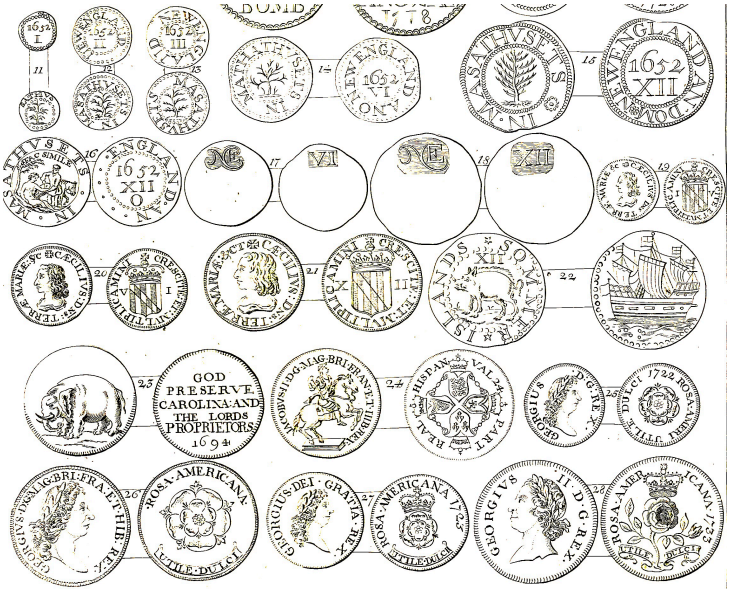
Kleeberg, J.M., The New Yorke in America Token. Money of Pre-Federal America. ANS 1992. New York.

https://en.wikipedia.org/wiki/Francis_Lovelace

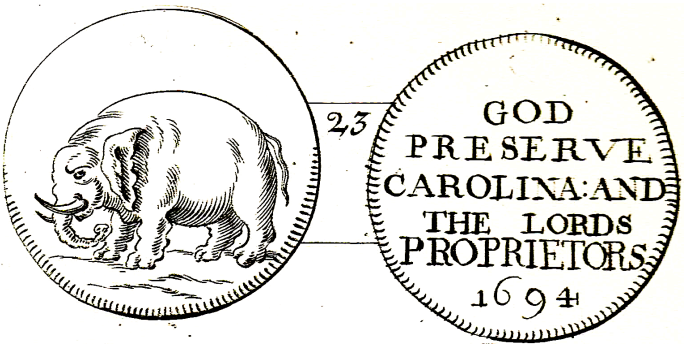
3. Elephant Tokens.

Sir Winston Churchill said in a 1939 radio broadcast, "I cannot forecast to you the action of Russia. It is a riddle, wrapped in a mystery inside an enigma". I feel the same way about Elephant Tokens. Mark Newby's coppers are not far behind!

Why collect something when you don't know what it is! The simple answer is, "it is in the Red Book"! A more complicated answer is that two names refer to North America: Carolina, and New England. Thomas Snelling, a London coin dealer, wrote about them in 1769. He illustrated the Carolina token, and listed but did not illustrate the London token. Snelling listed these coins not as "Colonial American", but "West Indies Colonies" coins, speaking to the importance of the West Indies over America.



Snelling engravings of "West Indian Colonies" coins



Detail of Carolina Token in Snelling 1769.

As Eric Newman pointed out in his 1965 article in The Numismatist, An Elephant Token Never Forgets — Forgery, people called them African halfpennies for centuries.

There are three main types of Elephant Tokens (ETs), London, Carolina and New England.

Michael Hodder first catalogued ET varieties in the Bowers and Merena Norweb Collection in 1987. The London tokens would seem to relate to London. But the Carolina and New England would seem more relevant to America.

Reading the literature is very confusing. Authors perseverate about various 1600s players, meeting places, institutions, etc. R. Neil Fulghum wrote a 45-page article with 154 references in the Colonial Newsletter entitled, "The Hunt for Carolina Elephants". I think what authors are trying to do is to lay out the known facts. And perhaps this is the best place to start — i.e. what we know, and what is exuberant supposition.

2940

(1694) London Elephant Token Thick. PCGS F 12

Early authors who discussed these issues were:

- 1713 Ralph Thoresby, Museum Thoresbyanum, who first mentions a London Elephant Token (ET).
- The Earl of Pemberton Collection prepared in 1720 and published in 1746 showed the first image of a Carolina Elephant Token.
- Thomas Snelling in 1769 listed the London and Carolina ETs.
- 1858 John Hickcox. Historical Account of American Coinage, the first American mention of Elephant Tokens.

What we know about the coins

- The Tower Mint (aka the English Royal Mint) owned Elephant Token (ET) dies. Snelling published in 1769 that he saw two dies in the Royal Mint. The Gentleman' magazine in a 1790 article said the Mint listed the dies in a 1769 inventory. By 1910 the Mint no longer listed the dies in inventory, though their inventory contained no pre-1800 dies of any kind.
- John Roettier, the Chief Engraver of the Royal Mint 1670 – 1697, and his younger brothers Joseph and Philip, who also worked at the Mint, engraved dies. The lettering of CAROL on the Carolina token is very similar to the letters on CAROLVS regal coppers. Private non-royal mints could have struck the tokens even if Roettiers engraved the dies at the Royal Mint.
- London ETs show no denomination, no authorization, and no date.
- Carolina and New England issues are dated 1694, so it is likely that they struck them that year. They may have struck the London issues then or on another date.
- Except for the rare "Godless" variety of London tokens, all say "God Preserve" and all have African elephant obverses. The expression "God Preserve" suggests calamity hit. Possibilities are:
  - o the Great Plague of London,
  - o the Great Fire of London,
  - o the threat of collapse of the Carolina colony,
  - o the threat during King William's War of the French taking New England.

  Although a threat argues for a possibility; it does not prove a case.
- There are two ET weight peaks: 140 grains and 230 grains (9.07 and 14.90 grams) with a wide range of 100 to 240 grains (6.48 to 15.55 grams). The English standard for regal halfpennies then was 166.7 grains (10.80 grams). Breen gives weight ranges for all types, and this is more useful than just calling them "thick" or "thin" varieties. None of these weights are consistent with the weight of a regal halfpenny.
- English copper of the period was 97% pure mixed with arsenic, which made it brittle and harder to strike. Rolling copper sheets to produce planchets hardened the copper even more. Cast planchets were softer to strike, as was Swedish copper, which was 99% pure.
- ETs often have planchet striations.
- We know of two London tokens overstruck on a 1672 regal halfpenny. But this does not prove they struck them in or about 1672. After all, 1804 dollars were all struck after 1834!

What else do we know?

a. The Mint

- During William and Mary's reign (1689-1702), the Tower Mint restarted copper regal coinage. The Mint had last struck copper in 1675 during the Charles II's reign (1660- 1685). During the 19-year hiatus to 1694, the Mint used tin for halfpence and farthings. Tin deteriorated fast, and people could easily make lead counterfeits.
- During the early 1670s, the Crown banned merchant tokens. Most merchant token before then were small, thin, light and crude — a different fabric from ETs.

b. The Royal African Company

- The Duke of York (Charles II's brother, who later became King James II) set up the "Royal Company of Adventurers Trading into Africa". Charles II granted their charter in 1660. In 1662 the Company elected the Duke of York as Governor. In 1672 they partnered with London merchants and reorganized into the "Royal African Company" (RAC). RAC lost their monopoly around 1688 - 1689.
- RAC elected Anthony Ashley-Cooper (later the Earl of Shaftesbury) in 1672 as a sub-Governor. In 1663 RAC listed four of the Carolina's Lords Proprietors as members of AC: Anthony Ashley, William Earl of Craven, Sir George Carteret, and Sir Peter Colleton. That four members were common to the RAC

and Carolina does not mean ETs related to both companies, or even one or the other company.

- RAC imported gold, but the slave trade soon became their primary focus. They exported Swedish and German copper to West Africa to make manillas, to buy slaves, rather than importing copper from Africa. They branded "DY" on their slaves for the Duke of York. Early Portuguese traders bought slaves for 8-10 manillas in 1505. By the time RAC started trading slaves, the price rose to about 30 manillas per slave. RAC took 212,000 slaves to the West Indies, but not to Carolina. Any slaves who reached Carolina did so on the secondary market. During the voyage, 44,000 slaves died. The death rate of a ship's crew and slaves were similar.

Manilla from southeastern Nigeria.

- England imported gold from Guinea, West Africa (now Ghana) and named their new coin the guinea. They produced the first coin with an elephant below the King's head in 1663. Some elephants have a howdah (a structure to carry people); some do not. Opposite is an elephant with a howdah. Elephants continued appearing on guineas until 1726 in the reign of George I.

- A small group of English colonists occupied Tangier in Morocco from 1661 to 1684.

1676 Charles II 5 guineas obverse.
Courtesy of Heritage Auctions HA.com

c. The London Coat of Arms

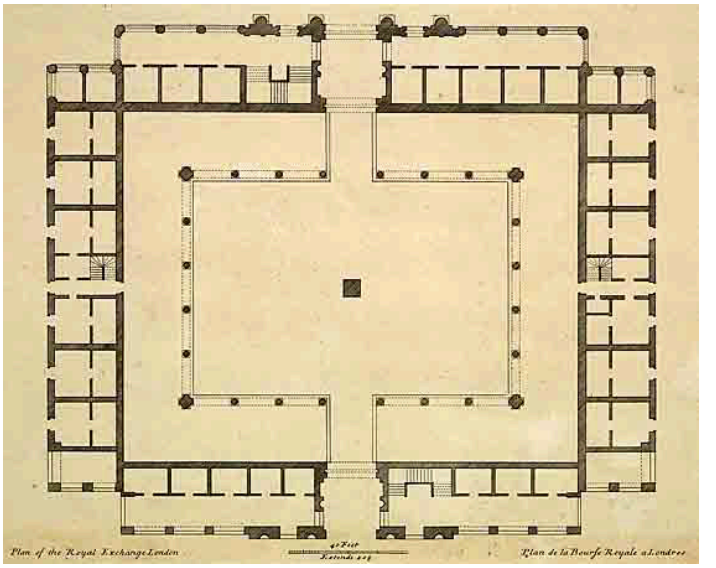
- The London ET shows the arms of the City of London: the George Cross on a shield, with a dagger in the first (top left) quadrant. Romance asserts that William Walworth, the Lord Mayor of London, used the dagger to kill Wat Tyler, the leader of the Peasants' Revolt in 1381.

Arms of City of London (George Cross).

- The Great Plague took place from 1665 to 1666. The Great Fire of London took place in 1666.

d. Carolina and the Lords Proprietors

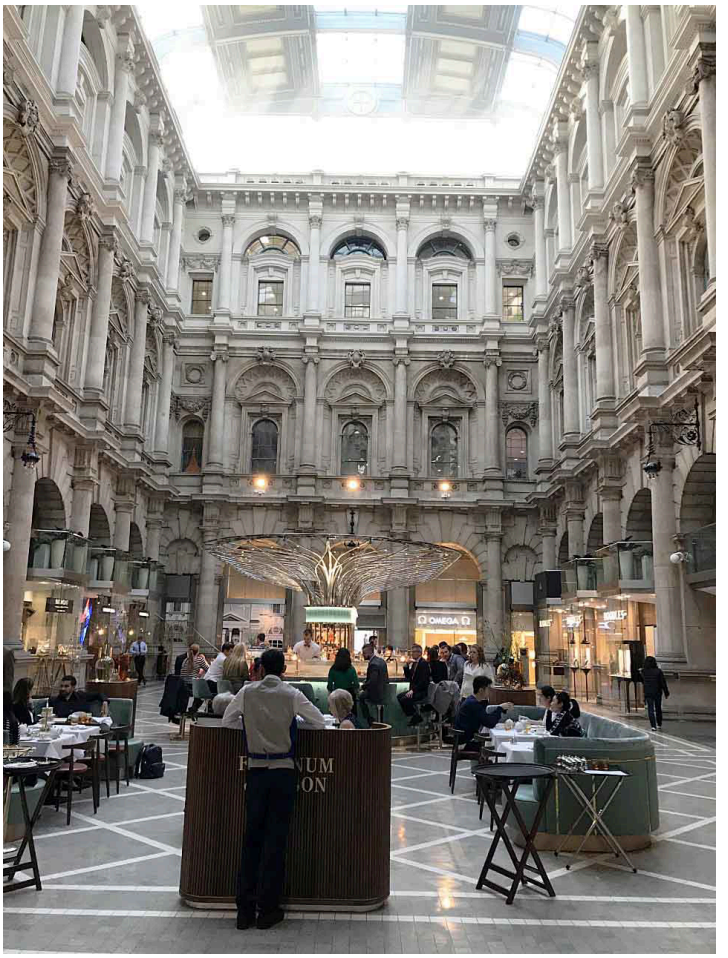
- In 1629 King Charles I granted a patent for the province of "Carolana" to Sir Robert Heath. Heath did not use the charter which the Crown then voided. They then reissued it to a group of eight English noblemen, called the Lords Proprietors, on the last day of 1663: March 24th, 1664/1663. Recall that before 1752 the year ended March 24th, not December 31st. Thus, we can write any date before 1752 between January 1st and March 24th as two dates (New Style and Old Style dates).
- Charles rewarded the Lords Proprietors because they helped him regain the throne. Some Virginia colonists settled in Carolina in 1653. In 1670, the proprietors sent 150 settlers to Charleston. Many of them hailed from Barbados. They grew rice and raised beef for Barbados slaves to maximize sugar cane growing on the island. Anthony Ashley-Cooper, First Earl of Shaftesbury, led the proprietors and had the philosopher John Locke write Carolina's constitution.
- Sir Thomas Gresham founded the Royal Exchange as a center of commerce for the City of London. He was the same Gresham after whom they named Gresham's law. The Antwerp Bourse had inspired him. London opened the Exchange in 1571, but they refused to allow stockbrokers, whom they considered rude and disorderly! The building burnt down during the Great Fire of London in 1666. Every English schoolboy remembers the ditty, "in sixteen hundred and sixty-six, London burnt like rotten sticks". A second Royal Exchange opened in 1669.
- The Royal Exchange had a central open courtyard and a peripheral covered area called an arcade or "walks". They assigned one area to the Carolina Coffee House and another area to the New England Coffee House. The Government wanted to advertise New England and Carolina, both on the margins of British North America.
- Businessmen entertained prospective clients at the coffee houses, just as they entertain at a restaurant or country club today. The New England Coffee House and London Coffee House sat on Threadneedle Street behind the Royal Exchange. The Carolina Coffee House sat on Birchin Lane (spelled Burching then), also close by.
- In 1694 the Bank of England opened in Mercer's Hall and moved to Threadneedle Street (below) in the 1730s.



Plan of second Royal Exchange, 1669. Courtesy of the British Library.

Today's Bank of England on Threadneedle St.

Threadneedle Street.



Inside today's London Royal Exchange 2019

- The Lords Proprietors advertised the Carolinas in 1682 and invited interested parties to the Carolina Coffeehouse. Thomas Amy was a London merchant and agent for the proprietors for many years. He hosted meetings at the coffeehouse, entertaining prospective investors and settlers. The Lords Proprietors, in appreciation of his services, later granted him a barony of 48,000 acres in the Carolinas, and 12,000 extra acres.
- Carolina's population dwindled from the 1680s to about 8,000 in 1694. The proprietors wanted to boost the population there to make the colony sustainable and profitable.
- The Lords Proprietors met in London in 1694 on Tower Hill a short distance from the Tower Mint.

e. The Carolina Mines Company

- Kleeberg's 2016 Colonial Newsletter article quotes John Houghton, who issued a weekly newsletter in the 1600s. This included stock prices and even option strategies! The newsletter contained an advertisement for the Carolina Mines Company (copper mines) in 1694. This later joined with the Cumberland Company to become the Carolina and Cumberland Company (copper mines). The company's officials met at Mrs. Vernon's Coffee House in Bartholomew Lane, London. This coffee house did business from 1690 to 1693. The owner's widow, Mrs. Vernon, took it over from 1693 to 1714.
- The Crown issued a copper patent in the 1690s to Sir Joseph Herne (1639-1699). He was M.P. for Dartmouth and a merchant and alderman of London. His family were wealthy London merchants who traded with the East Indies and with North America. He held office as the Governor of the Copper Miner's Company in 1691, and Merchant Adventurers to Northwest America also in 1691.

f. New England

The English chartered the New England Company to colonize Massachusetts Bay in 1628. There was another New England Company based in Massachusetts Bay in 1649. Their raison d'être was to convert Native Americans to Christianity. In 1686 James II created the "Greater Dominion of New England" to dominate the colonies. But within a few years it fizzled out.

What is supposition

- ETs can have no relation to RAC because RAC dissolved in 1694 (Bowers).
- Old collector accumulations in New York and New Jersey have included Carolina ETs (Breen). Greg Capps wrote in The Numismatist in 2011 that no one has ever found Carolina ETs in American hoards, only English hoards.
- William and Mary halfpenny patterns included ETs (Montagu).
- The Mint made ETs for RAC (Vlack).
- Colonists used ETs in New England and the Carolinas because of chronic coin shortages.
- London tokens referred to the Great Plague of London 1665-1666 and/or Great Fire of London 1666. (Snelling, Hickcox and Vlack).
- ETs were halfpennies (Hickcox).
- A Tangier colonial outpost used ETs (Snelling, Dickeson).

1606

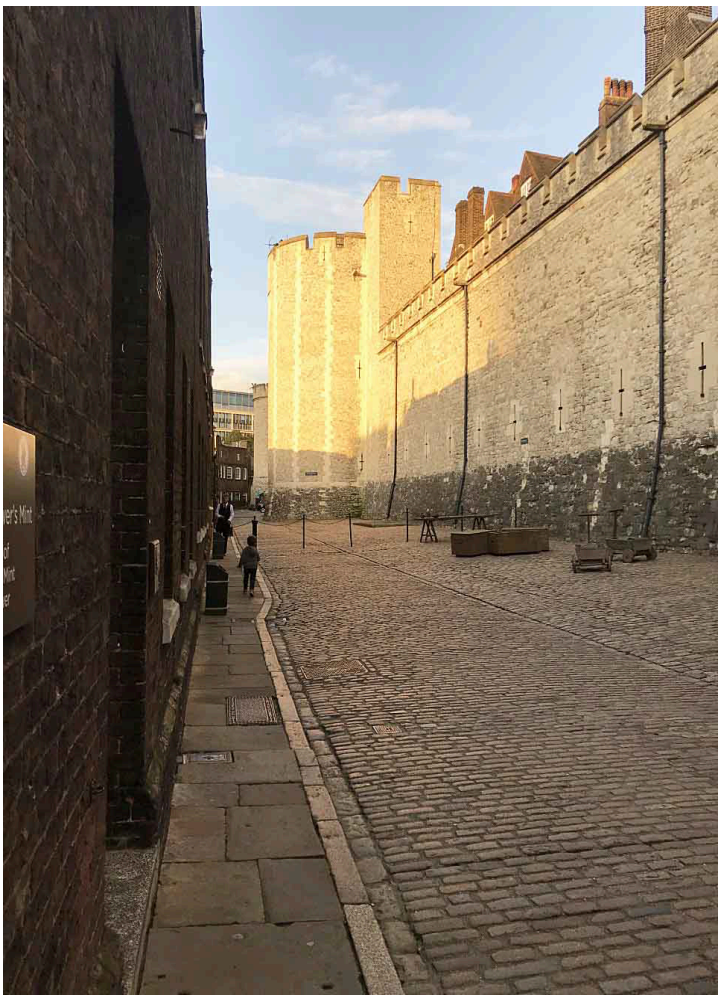
ELECTROTYPE OF ELEPHANT TOKEN. HODDER II-F (17 - 32 KNOWN); 27MM, 8.61 GRAMS UNC

- The copper for ETs came from West Africa (Bowers).
- ETs date to 1672 to 1684 (C. Wilson Peck, in his book English copper and tin and bronze coins in the British Museum).
- Quakers brought ETs to North America (Breen).
- All ETs date around 1694 (Steimle).
- ETs could have been trial patterns for regal coinage (thick flan), or colonial coins (thin flan).
- Elephants were new, exotic and eye catching. Far from it: in 1255 French King Louis IX gifted English King Henry III an elephant which he kept in his private zoo, called a menagerie". From time to time he would parade it around. Europeans interpreted descriptions of howdahs to mean that elephants could carry small stone castles on their backs. This may have been the inspiration for "Elephant and Castle". The city of Coventry in England used an elephant on its arms from 1441. It was a symbol of strength, whose only natural enemy was the dragon which St. George (born in Coventry) killed. Several other English tokens in the 1650s and 1660s used elephants as a design. Elephants were not new to England in 1665.

Possibilities:

- London ETs were trial pieces for regal or colonial coins.
- Someone made London ETs for RAC for Tangiers as coins or tokens.
- Carolina ETs were advertising tokens, or good for one coffee. Or they were to get a discount for colonists buying goods traveling to the Carolinas (or to New England for the New England Tokens).
- The Carolina Mines made or used tokens to advertise their mines, or as proposed coinage.
- New England ETs were patriotic tokens when France threatened New England and Carolina during King William's War.
- Someone could have issued London ETs earlier, e.g. 1665-1667 as tokens soon after the Mint stopped striking copper halfpennies and farthings. The God preserve message could have spoken to the Great Plague, or the Great Fire of London.
- All three tokens could have advertised coffee houses, or signified membership of the coffee house.
- ETs were East India Company tokens. Weight variations, and the lack of a date, authority and denomination, suggest that the London ETs were tokens or medals. The common variety contained more than a halfpenny worth of copper.

The Tower Mint may have created the dies, but private individuals may have struck the tokens.



Tower's Mint in London 2019 (on left).

In the winter of 1664, a bright comet appeared. People then were superstitious. Londoners feared its significance, and the Great Plague soon appeared. Superstitions confirmed! The rich, including Charles II, left the city in panic.

From 1665 to 1666, the Great Plague of London killed around a quarter of London's population of 460,000. To have lived through such a time, when a quarter of your family and friends died within 18 months, must have been truly terrifying and gruesome.

Hordes of people suddenly swelled up with buboes (huge lymph glands), with bruising then black gangrene of the fingers, toes and face. Death was not far behind. The stench of decomposing bodies was overwhelming.

Painful groin buboes after a leg flea bite.

No one knew what caused the plague. People blamed "emanations from the earth", "pestilential effluviums", bad weather, sick livestock, retribution for sins and a host of other explanations. City authorities ordered culling of dogs and cats, thinking they might be the cause (when they might have destroyed the rats that carried the fleas!) Authorities organized huge bonfires to cleanse the air of "miasma". All to no avail.

Numismatists often mention the Great Fire of 1666 as a possible cause for an ET issue. The Great Fire destroyed 70,000 of London's 80,000 homes. Although shocking, official estimates showed only six people died, though estimates of deaths range from a few hundred to a few thousand people. The plague was far worse.

But we know of two London ETs struck on 1672 regal coppers. So, unless someone struck them after the event, we must discount London ETs as talismans against the plague.

Instead, the next big threat to London occurred in 1672 when the Third Anglo-Dutch War broke out. Londoners may have recalled the end of the second war in 1667. The Dutch attacked and burnt 13 English ships of the line at the mouth of the River Thames and towed away the flagship of the English Navy! Could the Mint or private individuals have struck patriotic tokens with "God Preserve London"?

Carolina ETs dated 1694 spoke of the Lords Proprietors for Carolina. Perhaps they helped recruit people to invest in or emigrate to the Carolinas. The promotions took place in London at the Royal Exchange and at the adjacent coffee houses.

New England ETs dated 1694 likewise used the Elephant obverse, which the Royal Mint had in stock. They could produce a reverse with simple lettering at minimal cost. The Mint or private concerns may have struck these tokens as patriotic pocket pieces for the English who worried about French incursions into New England. Some say people did not call it New England then, just Massachusetts Bay. But Captain Smith named it New England in his 1616 map. And James II, trying to get New Englanders under his thumb in 1686, created the "Greater Dominion of New England".

As only three New England pieces exist, it may have been a trial piece not a commercially successful token. At any rate, there is too little information available to speculate what the token represented.

I bought an original London ET, but my Carolina ET is an electrotype, and my New England ET is a commercial copy made by CoinReplicas.com.

In the late 1880s and early 1900s electrotypists found coins, tokens and medals an ideal commercial niche for the collector market. The electrotype preserves the original issue as a three-dimensional copy. Sometimes, they can even be difficult to differentiate from the original. Fulghum (see references) says only three NEW ENGLAND ETs exist, and five each of the CAROLINA PROPRIETORS AND CAROLINA PROPRIETERS. What is a collector to do? Collect electrotypes!

In the pages ahead I show the London ET with the diagonals in the center rather than the common plain cross, and the New England variety by CoinReplicas.com.

1610

ELECTROTYPE OF ELEPHANT TOKEN. HODDER 1-A (7 - 16 KNOWN); 27MM, 8.36 GRAMS UNC

1608

COIN REPLICAS COPY OF NE ELEPHANT TOKEN HODDER II-G; 27M, 9.84 GRAMS UNC

HODDER'S CLASSIFICATION OF ELEPHANT TOKENS, CROSS-REFERENCED WITH BREEN AND BOWERS RARITY RATINGS, and BREEN'S WEIGHTS

				Obverse Details		Breen Grams	RARITY			
			Obverse I	Tusks well away from dentils						
			Obverse II	Tusks almost touch the dentils at 9 o'clock						
BREEN	BOWERS	HODDER		Reverse Details	Dagger	Weight	Hodder	Breen	Bowers	Hodder
185	12000	I	Reverse A	Shield saltire (diagonals) at center of cross.	Left	11.1 to 13.0	7 to 12	13 to 30	9 to 16	
186	12040	II	Reverse B	Shield plain (no diagonals)	Left	14.5 to 16.4	76 to 200	not given	500 to 999	
187				"thin flan" of above	Left	7.5	included	31 to 75	included	
184	12020	I	Reverse C	Shield saltire (diagonals) at center of cross	Right	11.18 to 11.67	4 to 6	4 to 12	3 to 4	
190	12060	II	Reverse D	LON DON ("Godless" shield)	Left	9.86	7 to 12	13 to 30	9 to 16	
191	12100	I	Reverse E	CAROLINA PROPRETERS		9.86	4 to 12	4 to 12	5 to 8	5 to 6
192	12120	II	Reverse F	CAROLINA PROPRIETORS (O over E)		11.4	21 to 30	13 to 30	17 to 32	5
193				"Medium flan" of above		9.8 to 10.5	included	31 to 75	included	
194				"thin flan" of above		7.0 to 8.4	included	13 to 30	included	
196	12140	II	Reverse G	NEW ENGLAND		15.2	2 to 3	8 to 24	3 to 4	3
197				"thin flan" of above		8.56	included	4 to 12	included	
				(All shields have star below except dagger right)						

References

Bowers, Q. David, Whitman Encyclopedia of Colonial and Early American Coins. 2009. Whitman Publishing, Atlanta , GA.
Breen, W. Walter Breen's Complete Encyclopedia of US and Colonial
Coins. 1988 Doubleday, NY.
Crosby, S. The Early Coins of America. Published by the Author Boston 1875.
Fulghum, R.N., The Hunt for Carolina Elephants: Questions regarding genuine Specimens and Reproductions of the 1694 token. Colonial newsletter, April 2003. Sequential page 2415 – 2450.
Gladfelter, D.D., A Tale of Two Elephants. Colonial Newsletter, July 1995, sequential pages 1511 – 1514.
Hickcox, J.H., An Historical Account of American Coinage. Albany and London. 1858.
Hodder, M., Norweb Collection Part I. Bowers and Merena. October 12th and 13th 1987. Pages 357 – 362.
Kleeberg, J.M., Taking Another Look at Elephant Tokens: Evidence from John Houghton's Collection for the Improvement of Husbandry and Trade. Colonial Newsletter. November 2016 Sequential pages 4454 – 4461
Snelling, T., Miscellaneous Views of the Coins ….Including those in the West Indian Colonies….London 1769.
Steimle, F., The Tricentennial Review and Comments on the God Preserve Elephant Tokens. Colonial Newsletter, April 1995. Sequential pages 1481 – 1487.
Yeoman, R.S., Ed. Bressett, K. Guide Book of United States Coins.1947, 1970 and 1073. Whitman Publishing LLC Pelham, AL 35124
Yeoman, R.S. Research Forum 2. Origin of the name Bermuda. Colonial Newsletter. Sequential page 136 – 141. March 1965.
https://www.luciastclairrobson.com/blog/the-tuesday-club/
https://coins.ha.com/itm/great-britain/world-coins/great-britain-charles-ii-gold-guinea-1676-/a/3030-24112.s?ic4=ListView-Thumbnail-071515
https://library.unc.edu/wilson/gallery/elephant-token/
https://coins.nd.edu/ColCoin/ColCoinIntros/ElephantTokens.intro.html
https://www.pcgs.com/coinfacts/category/colonials/pre-1776-private-regional-issues/elephant-tokens-1694/807
https://www.ncpedia.org/elephant-tokens
https://en.wikipedia.org/wiki/Coat_of_arms_of_the_City_of_London
https://www.historyofparliamentonline.org/volume/1715-1754/member/herne-joseph-1682-1723
https://www.geni.com/people/Sir-Joseph-Herne-MP/6000000045000569844
By Wenceslaus Hollar - Artwork from University of Toronto Wenceslaus Hollar Digital CollectionScanned by University of TorontoHighresolution version extracted using custom tool by User:Dcoetzee, Public Domain,
https://commons.wikimedia.org/w/index.php?curid=6234743
http://www.bl.uk/onlinegallery/onlineex/crace/p/0070000000000008u00064000.html
https://en.wikipedia.org/wiki/Bubonic_plague#/media/File:Plague_-buboes.jpg
By Tropenmuseum, part of the National Museum of World Cultures, CC BY-SA 3.0,
https://commons.wikimedia.org/w/index.php?curid=20354061

4. 1714 Gloucester Token.

Two Gloucester brass tokens exist. They show a courthouse with XII beneath (for a shilling). The legend reads GLOVCESTER COVRT HOUVSE VIRGINIA and continues on the other side RIGHAVLT DAWSON. ANNO.DOM. 1714. The central device on the other side is a pentacle, a talisman used in magical evocations. Christians used it to represent the five wounds of Christ.

Righault and Dawson are both last names and could have been a partnership. A Righault family once owned land near the courthouse.

One speculation is that this was a brass pattern for a silver shilling. Another is that it was a token for tobacco, which was then legal tender in Virginia. As only two specimens exist priced in the six-figure range, this is not a collectable coin, and it saw no significant circulation.

5. Florida 4 Reales Proclamation pieces

Thankfully, this is not in the Red Book, nor in Q. David Bowers Colonial and Early American Coins. But it is in Breen's Encyclopedia of US and Colonial Coins.

The Spanish owned Florida until the British took it in 1763. Obviously, we must consider any circulating Spanish American coins at the time as colonial American. We have already discussed foreign circulating coins in colonial America.

The Spaniards regained the territory in 1783. But as part of the Louisiana Purchase, they lost it again to America in 1803.

So, were there any coins which circulated in Florida from 1763 to 1783 which did not circulate in the rest of Spanish America? There is a 1760 four reales silver proclamation piece with the word Florida on it.

Spanish colonies issued proclamation pieces when a new King came to the throne. In 1760, Carlos III came to the throne. The wording on the reverse is Juan Estevan de Pena Florida. The word Florida is intriguing. However, it may represent his name, not his country. Spanish use their mother's name as their last name. This was in 1760 before Britain took over Florida, and while it remained a Spanish possession.

A second proclamation piece in 1789 for Carlos IV has a legend part Latin, part Spanish, reading LA FLORIDA ORIENTAL PER ZESPEDES PROCLAMATUR 1789. This translates to East Florida, 1789 proclaimed by (Governor) Zespedes. Zespedes was Governor of East Florida 1784-1790.

However, if we designate Spanish proclamation medals as colonial coins, we must think of California, which was part of Mexico in colonial times. Spanish American money would have circulated there, and maybe even a few silver proclamation pieces. In that case, we must include any Mexican proclamation piece as an American colonial coin. This is getting ridiculous! Stop!

6. Albany Church Penny.

In July 1789 a copper panic developed. This lasted until early 1790. Many merchants refused coppers; if they accepted them, they wanted 160-180 to the Spanish milled dollar, not the usual 90.

In the First Presbyterian Church of Albany, many parishioners put counterfeit and underweight coppers in the collection plate. The church minted 1,000 coppers to exchange with parishioners at twelve to the shilling, i.e. 56 to the Spanish milled dollar. They wanted silver, not bad coppers from their congregants!

Even in low grades this is a five-figure coin. Around a dozen exist today. I therefore list this in the "Little Used Pieces in Colonial America" section.

1727

Lead 1790 Communion Token. United Presbyterian Church Allegheny. Bason-186; 26mm, 9.02Grams VF

Communion tokens were much commoner. The token on the last page is from the United Presbyterian Church of Allegheny, Pennsylvania in 1790.

The obverse shows a chalice in the center, surrounded by the legend THIS DO IN REMEBRANCE OF ME (recited by the pastor during the consecration of bread and wine). The reverse says, 2ND . U(nited). P(resbyterian) CHURCH ALLEGHENY.

John Calvin first suggested communion tokens to stop unworthy people taking communion. The earliest tokens came from the Reformed Church of France. Without your church's communion token, you could not receive communion from your church.

American Presbyterians also used them, perhaps to prevent being betrayed by spies during persecution.

In the late 1800s most churches replaced the tokens with cards.

This token had a big advantage for me over the Albany token: it cost $300 instead of $30,000! But people did not use communion tokens as money, just as identification.

References

Bason, A. A., Communion Tokens of the US. Self-published, Greensboro N.C., 1989
Bowers, Q. David, Whitman Encyclopedia of Colonial and Early American Coins. 2009. Whitman Publishing, Atlanta, GA.
Breen, W. Walter Breen's Complete Encyclopedia of US and Colonial Coins. 1988 Doubleday, NY.
Yeoman, R.S., Guide Book of United States Coins, Whitman Publishing, Racine, WI. 1947 and 2020

7. Non Dependens Status

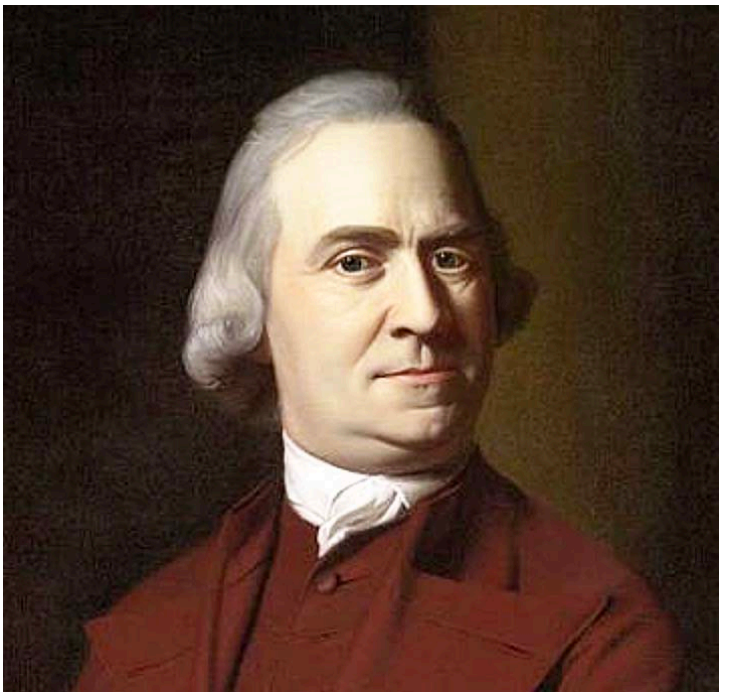
Some say Paul Revere hand engraved the Non Dependens Status Copper. Hickcox listed it in his Historical Account of American Coinage, citing Horton's Literary Letter No. 2 as the source. Dickeson also illustrated it in his 1859 American Numismatical manual, as did Crosby in 1875. In 1862 this engraved piece realized $79 (more than a silver center cent and a Higley in the same auction).

The obverse of this coin shows a cuirassed bust perhaps of an Indian chief facing right. The legend reads NON DEPENDENS STATUS. On his breast is a clasp of head and two wings.

The reverse shows an Indian youth with headband and feathered skirt, sitting on globe holding tobacco in his right hand, leaning on oval shield w/ left hand. The shield is quartered diagonally by a flagstaff with an American flag and a sword. There is one fleur de lys in each quarter. The legend reads AMERICA.

George H. Lovett, a New York City diesinker copied it using Norton's illustration. Underneath the truncation he placed the word COPY. Some tooled away COPY from their pieces. Later someone modified the die to remove the word COPY. Alfred Robinson, a Hartford, Connecticut banker struck 100 of Lovett's pieces in copper and 6 in silver.

The engraved original was a unique fantasy piece and obviously did not circulate. Byron K. White studied the coin said the head closely resembles a John Singleton Copley portrait of Samuel Adams, the Revolutionary War patriot.



Samuel Adams by John Singleton Copley

References

Bowers, Q. David, Whitman Encyclopedia of Colonial and Early American Coins. 2009. Whitman Publishing, Atlanta, GA.
https://commons.wikimedia.org/wiki/File:J_S_Copley_-_Samuel_Adams.jpg

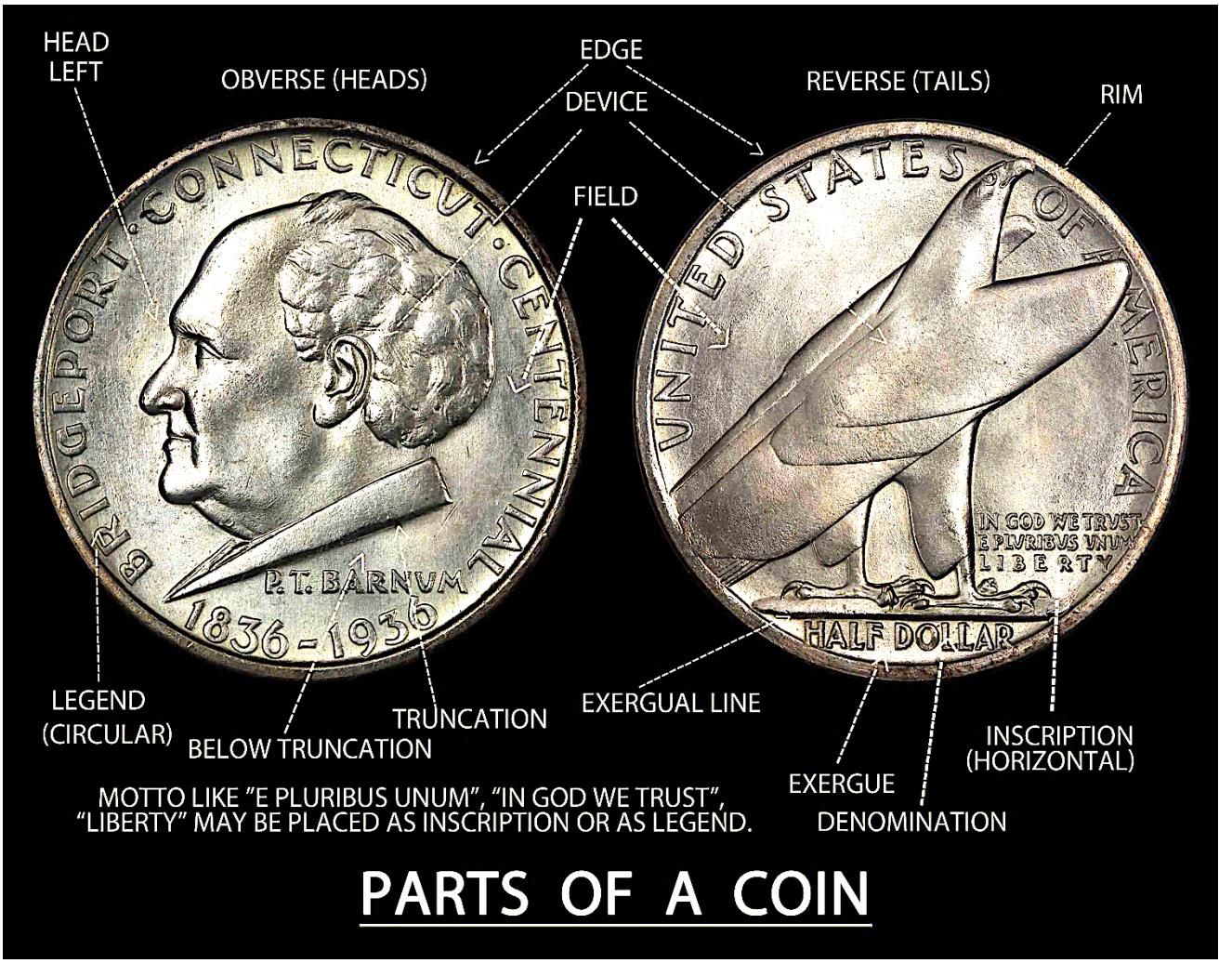
2952

NON DEPENDENS STATUS Copper 1778. Robinson Copy. W-15250; 27.5mm PCGS 64

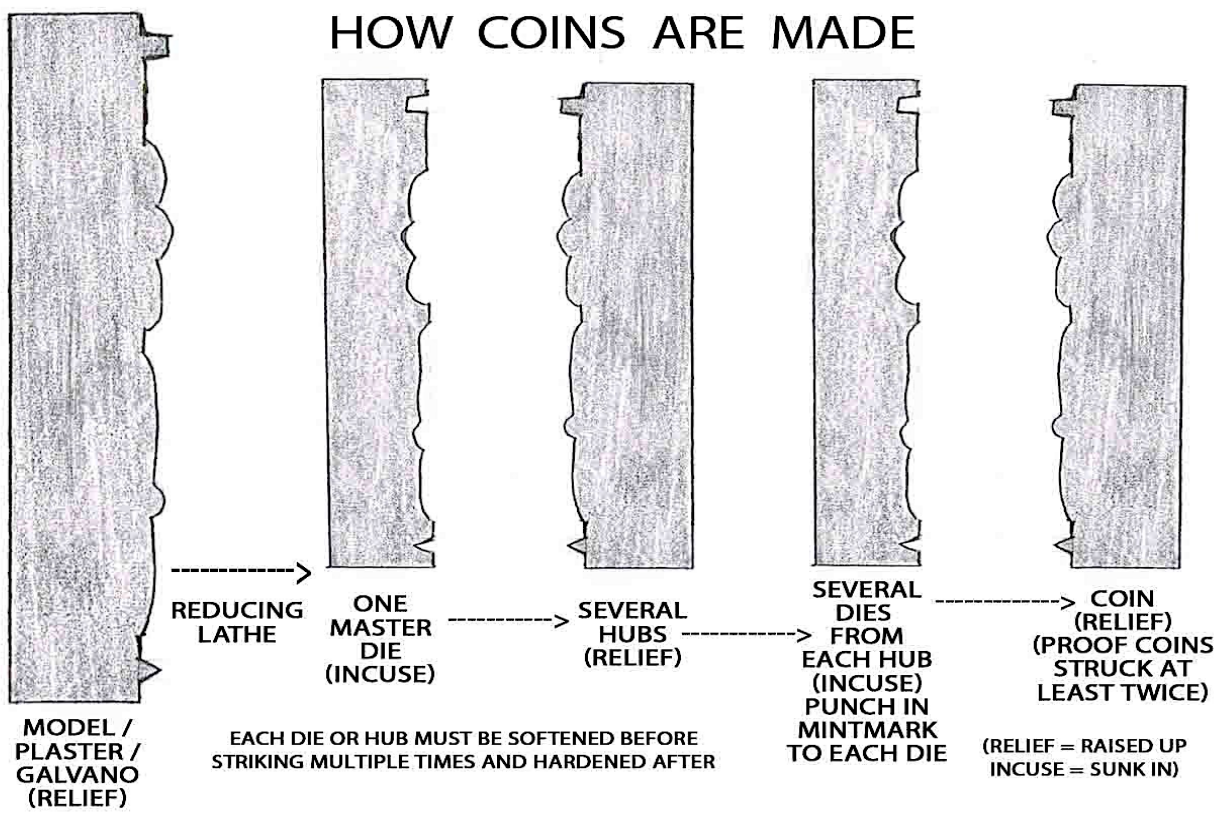
Brief Glossary.

Adjustment Marks filing on planchet to adjust weight
AE bronze
AR silver
AV gold
Billon silver under 50% pure
Bit one eighth of a Spanish Milled Dollar
Brass mixture of copper and zinc
Bronze mixture of copper and tin
Bungtown counterfeit 1700s halfpence
Castaing machine to impart an edge design
Collar ring to stop metal flow on edge of coin during strike
Colonial coin coin used before federal government coinage started 1793
Commodity money goods of fixed value used when no coins available
Contemporary counterfeit made then, not today
Counterstamp small die struck over coin
d abbreviation for English penny (from Latin denarium)
Denticles tooth-like coin borders
Die incuse steel to strike coin
Die orientation how reverse orients to obverse
Ecu Large French dollar sized coin valued at 3 to 6 livres
Electrotype exact metal copy of a coin
Evasion coin copy evading counterfeit laws
Fantasy imaginary coin, never officially made
Fineness percentage purity of bullion
Grading standards describing coin wear
Grains old weight measure ~ 65mg
Hammer hitting die with hammer to impress coin
Hub relief steel to strike die
Imitation coin copy to fool consumers
Incuse sunk in metal
Jeton counter or token used for counting
Livre French unit composed of 20 sols or 240 deniers
Machine Screw press or mechanical press
Medal large coin-like object for art, award or celebration over 35mm
Medalet medal under 35mm
Metrology study of measurement, typically weight, size and percentage bullion in coins. Previously measurements were given in grains, inches, and parts per 24 purity. Today many use grams, millimeters and percent.
Milled coin struck by machine not hand

Money of account basis of exchange to keep accounts based on coin or imaginary unit
Mule coin or medal whose two dies were never originally intended to be struck together
New Style dating after 1752 when the year ended on December 31st, and the New Year started on January 1st.
NGC Numismatic Grading Company
Numismatics study of coins, medals, etc.
Obverse front of the coin or "heads'
Old Style dating before 1752 when the year ended on March 24th, and the New Year started on March 25th.
Pattern proposed coinage
PCGS Professional coin Grading Service
Piece of Eight Spanish 8 reales silver coin
Pistareen 20% light weight 2 reales piece
Planchet disc of metal used to strike a coin
Pound Abbreviated £. Equivalent to 20 shillings or 240 pence
Reeding edge made of vertical striations
Regal authorized coin issues by monarch
Relief raised up metal
Reverse back of the coin or "tails"
Rocker press curved dies in mechanical see-saw machine
Screw press like a book press or vice using die to impress coin
Siege money made by city during medieval siege
Spanish Milled Dollar Machine struck silver 8 reales starting 1732
Sterling 92.5% silver
Sweating shaking coins in container to get bullion fragments
Token metal or hard object which represents value, but whose innate bullion value is lower or absent
Token coinage coin whose bullion value is under its denominated value
Washingtonia Coin or medal with Washington's head
White metal low melting point alloy of lead, tin, zinc, etc.



PARTS OF A COIN



Modern Coin Manufacture

EnglishWeight in grams (metal purity in parentheses) name **ENGLISH METROLOGY**

North says English gold is 99.5% pure, Spink says 95.83% pure **Sterling silver is 92.5% fine**

Monarch	Date			GOLD				SILVER		Copper
William I	1066						**Penny**	**Shillling**	**Crown**	
William II	1087						1.44 (92.5%)			
Henry I	1100						1.44 (92.5%)			
Steven	1135						1.44 (92.5%)			
Henry II	1154						1.44 (92.5%)			
Ricahrd	1189						1.44 (92.5%)			
John	1199						1.44 (92.5%)			
Henry III	1216						1.44 (92.5%)			
Eward I	1272						1.44 (92.5%)			
Edward II	1307	**Noble (6/8)**					1.44 (92.5%)			
Edward III	1327	8.97 (99.48%)					1.32 (92.5%)			
	1344	8.33 (99.48%)					1.30 (92.5%)			
	1351	7.77 (99.48%)					1.17 (92.5%)			
Richard II	1377	7.77 (99.48%)					1.17 (92.5%)			
Henry IV	1399	7.77 (99.48%)					1.17 (92.5%)			
	1412	6.99 (99.48%)					0.97 (92.5%)			
Henry V	1413	6.99 (99.48%)					0.97 (92.5%)			
Henry VI	1422	6.99 (99.48%)					0.97 (92.5%)			
Edward IV	1461	6.99 (99.48%)					0.79 (92.5%)			
		Ryal (10/-)	**Angel (6/8)**				0.79 (92.5%)			
	1464	7.77 (99.48%)	5.18 (99.48%)				0.79 (92.5%)			
Henry VI restored	1470		5.18 (99.48%)				0.79 (92.5%)			
Edward IV reign2	1471		5.18 (99.48%)				0.79 (92.5%)			
Edward V	1483		5.18 (99.48%)				0.79 (92.5%)			
Richard III	1483		5.18 (99.48%)	**Sovreign (20/-)**			0.79 (92.5%)	**Testoon**		
Henry VII	1485	7.77 (99.48%)	5.18 (99.48%)	15.55 (99.48%)			0.79 (92.5%)	9.33 (92.5%)		
Henry VIII	1509	7.77 (99.48%)	5.18 (99.48%)	15.55 (99.48%)			0.79 (92.5%)			
			Angel (7/6)	**Sovreign (22/6)**			0.79 (92.5%)			
	1526		5.18 (99.48%)	15.55 (99.48%)			0.69 (92.5%)			
				Sovreign (20/-)			0.69 (92.5%)			
	1544			12.96 (95.83%)			0.69 (92.5%)	7.78 (75%)		
	1545			12.44 (91.67%)			0.65 (50%)	7.78 (50%)		
	1546		**Angel (10/-)**	12.44 (83.33%)	**Crown Gold (20/-)**		0.65 (33%)	7.78 (33%)		
Edward VI	1547	no		10.98 (91.67%)	11.31 (91.67%)		0.65 (33%)	3.89 (66.67%)		
				Sovreign (30/-)			0.65 (33%)	5.18 (50%)		
	1550	**Ryal (15/-)**	5.18 (99.48%)	15.55 (95.83)			0.81 (33%)	5.18 (25%)		
Mary	1553	7.77 (99.48%)	5.18 (99.48%)	15.55 (95.83)	no		0.78 (25%)	?		
Elizabeth I	1558	7.77 (99.48%)	5.18 (99.48%)	15.55 (95.83)	11.15 (91.67%)		0.51 (92.5%)	6.19 (92.5%)		
		Spur Ryal (15/-)		**Sovreign (20/-)**	**Rose Ryal (30/-)**	**Unite (20/-)**	0.5 (92.5%)	6.02 (92.5%)	30.1 (92.5%)	
James I	1603	6.92 (99.5%)	5.18 (99.48%)	11.14 (99.58)	13.83 (95.83%)	10.03 (95.83%)	0.5 (92.5%)	6.02 (92.5%)	30.1 (92.5%)	
		Spur Ryal (16/6)	**Angel (11/-)**	no	**Rose Ryal (33/-)**	**Unite (22/-)**	0.5 (92.5%)	6.02 (92.5%)	30.1 (92.5%)	
	1612	6.92 (99.5%)	5.18 (99.48%)		13.83 (95.83%)	10.03 (95.83%)	0.5 (92.5%)	6.02 (92.5%)	30.1 (92.5%)	
		Spur Ryal (15/-)	**Angel (10/-)**		**Rose Ryal (30/-)**	**Laurel (20/-)**	0.5 (92.5%)	6.02 (92.5%)	30.1 (92.5%)	
	1619	6.36 (99.5)	4.24 (99.48%)		12.58 (95.83%)	9.10 (91.67%)	0.5 (92.5%)	6.02 (92.5%)	30.1 (92.5%)	
Charles I	1625	no	4.24 (99.48%)	no	no	**Unite (20/-)**	0.5 (92.5%)	6.02 (92.5%)	30.1 (92.5%)	
			4.19(99.48%)	**Guinea (21/-)**		9.10 (91.67%)	0.5 (92.5%)	6.02 (92.5%)	30.1 (92.5%)	**Copper**
Interregnum	1649	no	no	**and multiples**	no	9.10 (91.67%)	0.5 (92.5%)	6.02 (92.5%)	30.1 (92.5%)	**halfpenny**
Charles II	1660			8.5 (90.94%)			0.5 (92.5%)	6.02 (92.5%)	30.1 (92.5%)	9.9-12.1
James II	1685			8.5 (90.94%)			**Only for Maundy**	6.02 (92.5%)	30.1 (92.5%)	tin 10.5-11.7
William/Mary	1688		**Guinea&mult (21/6)**	8.4 (91.23%)				6.02 (92.5%)	30.1 (92.5%)	8.9 - 11.5
			Guinea&mult(30/-)	8.4 (91.23%)				6.02 (92.5%)	30.1 (92.5%)	
Anne	1702		**Guinea&mult (21/6)**	8.3 (91.34%)				6.02 (92.5%)	30.1 (92.5%)	only farthing
George I	1714		**Guinea&mult (21/-)**	8.35 (91.35%)				6.02 (92.5%)	30.1 (92.5%)	8.1
George II	1727		**Guinea&mult (21/-)**	8.35 (91.40%)				6.02 (92.5%)	30.1 (92.5%)	9.7 - 10.3
George III	1760		**Guinea&mult (21/-)**	8.4 (91.46%)	**Sovreign (20/-)**			6.02 (92.5%)	30.1 (92.5%)	
	1770-5									9.2 - 10.8
	1799									12.0 - 13.1
	1805-7									9.2 - 9.8
	1816					**First token silver**		5.63 (92.5%)	28.3 (92.5%)	
George IV	1820				7.98 (91.67%)			5.63 (92.5%)	28.3 (92.5%)	9.2
William IV	1830				7.98 (91.67%)			5.63 (92.5%)	28.3 (92.5%)	8.8
Victoria	1837				7.98 (91.67%)			5.63 (92.5%)	28.3 (92.5%)	8.8
	1860							5.63 (92.5%)	28.3 (92.5%)	5.7
Edwad VII	1901				7.98 (91.67%)			5.63 (92.5%)	28.3 (92.5%)	5.7
George V	1910				7.98 (91.67%)			5.63 (92.5%)	28.3 (92.5%)	5.7
	1920							5.63 (50%)	28.3 (50%)	5.7
Edward VIII	1936				no			no	no	5.7
George VI	1936				7.98 (91.67%)			5.63 (50%)	28.3 (50%)	5.7
	1947					**Cupronickel coinage**		5.65(CuNi)	28.3 (cupronickel)	5.7
Elizabeth II	1952				7.98 (91.67%)			5.63 (50%)	28.3 (50%)	5.7

Weight in grams (metal purity in parentheses) name **FRENCH METROLOGY** From Duplessy

Monarch	Year	denier tournois	gros tournois	billon	ecu	Ecu d'or	COPPER			
Louis IX	1245	1.13 (30%)	4.22 (95.8%)			4.02 (100%) ecu				
Philippe III	1270	1.13 (30%)	4.22 (95.8%)							
Philippe IV	1285	1.13 (30%)	4.22 (95.8%)			3.55 (100%) Petit royal				
						7.10 (91.6%) a la masse				
						4.71 (100%) Florin				
						3.50 (100%) Mantelet				
						4.12 (100%) Agnel				
Louis X	1314	1.15 (30%)				4.14 (100%) Agnel				
Philippe V	1316		4.14 (95.8%)			4.14 (100%) Agnel				
Chalres IV	1322		4.22 (95.8%)			4.14 (100%) Agnel				
						4.22 (100%) Royal				
Philippe VI	1328	0.91 (17.9%)	4.08 (95.8%)			4.22 (100%) Royal				
						7.28 (100%) Parisis				
						4.53 (100%) a la chaise				
						4.90 (100%) Lion				
						5.10 (100%) Pavillon				
						5.44 (100%) Couronne				
						7.27 (100%) Ange				
						4.65 (100%)Florin Georges				
						4.71 (100%) Chaise				
Edward III	1337									
Jean II	1350	1.11 (14.6%)				4.53 (87.5%) a la chaise				
						4.90 (100%) denier				
						4.71 (100%) Mouton				
						3.71 (100%) Royal				
						3.89 (100%) Franc a cheval				
Charles V	1364		2.91 (95.8%)			3.89 (100%) Franc a cheval				
				blanc dit guénar		3.82 (100%) Franc a pied				
Charles VI	1380	0.98 (15.9%)	2.89 (93.1%) aux lis	3.26 (47.8%)		4.08 (100%) a la couronne				
						2.55 (95.8%) Agnel				
						5.10 (91.6) Heaume				
						3.89 (100%) Salut				
Henri V	1415			3.06 (31.9%) Guénar		2.55 (91.6%) Agnel				
						3.71 (100%) Ecu couronne				
Henri VI	1422	1.09 (11.9%)				3.89 (100%) Salut				
						2.33 (100%) Angelot				
Charles VII	1422	1.24 (11.9%)		3.40 (35.8%) blanc dit florette		3.06 (100%) Franc a cheval				
			2.13 (40%)			2.55 (95.8%) Agnel				
						3.82 (100%) Ecu				
						3.82 (100%) Royal				
			Gros de Roi			3.50 (100%) salut				
I 2nd period	1436	1.02 (11.9%)	3.60 (92.7%)			3.50 (100%) a la couronne				
Louis XI	1461					3.45 (96.3%) a la couronne				
		1.02 (10.6%)	3.55 (91.7%)			3.50 (96.3%) au soleil				
Charles VIII	1483	1.02 (7.9%)	3.55 (91.8%)	Teston		3.50 (96.3%) au soleil				
Louis XII	1498	0.97 (7.9%)	5.36 (47.9%)	9.60 (93.8%)		3.50 (96.3%) au soleil				
			Douzain			3.50 (96.3%) porc-épic				
Francois I	1515	?	2.66 (33.9%)	?		3.50 (96.3%) au soleil				
2nd Period	1540	0.98 (6.9%)	2.66 (33.9%)	?		3.44 (95.8%) au soleil				
						3.44 (95.8%) aux salamandres				
						3.44 (95.8%) a la croisette				
Henri II	1547	0.98 (6.9%)	2.62 (29.2%)	9.60 (89.9%)		3.44 (95.8%) a la croisette				
						3.44 (95.8%) a l'effigie				
						3.65 (95.8%) Henri d'or				
						3.38 (95.8%) aux croissants				
Francois II	1559	none	none	Henri II		3.65 (95.8%) Henri d'or				
Charles IX	1560			Henri II		3.65 (95.8%) Henri d'or				
		0.80 (6%)	2.40 (28%)	9.60 (89.9%)		3.375 (95.8%) au soleil	Copper			
Henri III	1574	none	?	?		3.375 (95.8%) au soleil	Denier			
In Henri's name	1575	0.70 (5.6%)	2.40 (24%)	9.60 (89.9%)		3.375 (95.8%) au soleil	1.57			
Charles X	1589		2.40 (24%)		Franc & 1/4 ecu	3.375 (95.8%) au soleil	1.57			
Henri IV in III's nam	1589	?	?	none	1/2 franc & 1/4 ecu	3.375 (95.8%) au soleil				
In Henri IV name		none	2.40 (24%)	Half Franc	Franc 14.12 (83.3%	3.375 (95.8%) au soleil				
					1/2 Ecu 19.42 (91.7%)		1.57			
Louis XIII		none	0.61 (91.7%)	7.09 (83.3%)	1/4 ecu 9.71 (91.7%)	3.375 (95.8%) au soleil				
		Ecu worth 3 livres			Ecu 27.45 (91.7%)	10,8,4 & 2 Louis d'or	1.57			
Louis XIV	1643	none			1/4 ecu 9.71 (91.7%)	3.375 (95.8%) au soleil				
			cross/shield	1643 1 ecu = 84 sols	ECU	6.75 (91.7%) Louis d'or				
	"meche courts"	1 écu = 3 livres	cheveux courts/shield	1643	Ecu 27.45 (91.7%)	4.05 (95.8%) Lis d'or				
	"meche longue"		longue meche/shield	1646	Ecu 27.45 (91.7%)	4.05 (95.8%) cheveux longs				
	"buste juvenile"		buste juvenile/shield	1668	Ecu 27.45 (91.7%)	4.05 (95.8%) tete nue				
	"a la cravatte"		a la cravate/shield	1680	Ecu 27.45 (91.7%)	6.75 (91.7%) L d'or a l'écu				
E	"Béarn bust drapé a l'antique"		drapé a l'antique/shield	1684-89	Ecu 27.45 (91.7%)	6.75 (91.7%) L d'or aux 4 L				
	"de Flandre"	1 écu = 4 livres	drapé a l'antique/shield	1685-6	Ecu 37.65 (85.7%)	6.75 (91.7%) L d'or aux 8 L				
C	"aux huit L"	1 écu=3 livres 6 sols	drapé a l'antique/8 L	1690	Ecu 27.45 (91.7%)	6.75 (91.7%) L d'or insignes				
	"aux palmes"	1 écu=3 livres 12 sols	cuirassed bust/écu rond	1693	Ecu 27.45 (91.7%)	8.16 (91.7%) au soleil				
U	"de béarn aux palmes"		3 section round shield	1693	Ecu 27.45 (91.7%)					
	"Flandre aux palmes"	1 écu=4 livres 12 sols	4 section round shield	1693-1700	Ecu 37.65 (85.7%)					
S	"insignes"	1 écu=3 livres 16 sols	cuirassed/round+scepte	1701-4	Ecu 27.45 (91.7%)					
	"Béarn aux insignes"		cuirass/3pt round scepte	1701-3	Ecu 27.45 (91.7%)					
	"Flandre aux insignes"	1 écu=4 livres10 sol	cuirass/4pt round scepte	1701-3	Ecu 37.65 (85.7%)					
	"aux huit L" 2nd type	1 écu=4 livres	cuirassed/ 8L	1704	Ecu 27.45 (91.7%)			COPPER		
	"Béarn aux 8L"		cuirass/3ptCenter 8L	1704	Ecu 27.45 (91.7%)					
	"Flandre aux insignes"	2ndType 1écu=5l2s8	escutcheon shield w/sce	1703	Ecu 37.65 (85.7%)		Denier	Liard	Demi-sol	Sol
	"aux trois couronnes"		auirass/3 crowns	1709	Ecu 30.59 (91.7%)				Sol	
			douzaine 1.85 (19.9%)				1.63	4.08	6.12	none
Louis XV	1715	none				8.16 (91.7%) au soleil				
	"aux trois couronnes"	écu=3 1/2 livres	enfantin/3 crowns	1715	Ecu 30.59 (91.7%)	8.16 (91.7%) aux insignes				
E	"vertugadin"	écu = 5 livres	enfantin/round shield	1716	Ecu 30.59 (91.7%)	12.24 (91.7%) de Noailles				
	"Navarre"	écu = 6 livres	escutcheon shield 4 pt	1718	Ecu 24.48 (91.7%)	9.79 (91.7%) Croix de Malte				
C	"de France"	écu = 9 livres	escutcheon shield 1 pt	1720	Ecu 24.48 (91.7%)	9.79 (91.7%) aux 2 L				
	"aux huit L"	écu = 4 livres	cuirassed/8 L	1724	Ecu 23.59 (91.7%)	6.53 (91.7%) d'or mirliton				
U	"aux rameaux d'olivier	écu=5 livres (later 6	bust/round sh w/olive br	1737	Ecu 29.49 (91.7%)	8.16 (91.7%) aux lunettes				
	"au bandeau" (ribbon)	écu = 6 livres	bust/round sh w/olive br	1740	Ecu 29.46 (91.7%)	8.16 (91.7%) au bandeau				
S	"La vieille tete"		old/round sh w/olive br	1771-4	Ecu 29.46 (91.7%)					
			sol = 1.09 (20.8%)				none	3.06	6.12	12.24
Louis XVI	1774					8.16 (91.7%) aux palmes				
	"aux rameaux d'olivier	écu=6 livres	bust/round sh w/olive br	1774-1792	Ecu 29.49 (91.7%)	8.16 (91.7%) aux lunettes	none	3.06	6.12	12.24
						8.16 (91.7%) tete nue				

Spanish Weight in grams (metal purity in parentheses) **MEXICO METROLOGY**

From Standard Catalogue of World Coins Spain Portugal and New World, Krause

*** Krause lists pistareens as 6.77 grams. Krause values produce 12% not 20% difference. They may be wrong.**

***Thomas Kays in Colonial Newsletter,April 2001 page 2169 lists pistareens at 5.8 to 6.2 grams**

***coins.nd.edu says pistareens weighed 5.44 to 6.22 grams with a fineness of 81.25 to 84.2%**

*** I have a pistareen which weighs 4.33 grams**

****Weights and fineness for Potosi silver cobs in 1630s and 1640s are low because of a mint scandal.**

		MEXICO	GOLD	MEXICO	SILVER	SPANISH	COPPER
Monarch	Date	8 Escudo	2 Escudo	8 reales	2 Reales	PISTAREENS	4 Maravedi
	1505			Precob			2.87
Carlos y Juana	1516			27.18 (85.0)	6.8 (93.1%)		4.5 - 5.8
COBS				Cobs	Cobs		
Philip II	1556			27.07 (93.1%)	6.77 (91.3%)		
Philip III	1598			27.07 (93.1%)	6.77 (91.3%)		
Philip IV	1621			27.07 (93.1%)**	6.77 (91.3%)**		
Carlos II	1665			27.07 (93.1%)	6.77 (91.3%)		
	1680	27.07 (91.70%)	6.77 (91.70%)				
Philip V	1700-1746	27.07 (91.70%)	6.77 (91.70%)	27.07 (93.1%)	6.77 (91.3%)		
Luis I	1724	27.07 (91.70%)	6.77 (91.70%)	27.07 (93.1%)	6.77 (91.3%)	Pistareens	
	1725					5.4-6.2 (83.3%)*	Cross Pistareen
		Milled	Milled	Milled	Milled	5.4-6.2 (83.3%)*	
MILLED	1732	27.07 (91.70%)	6.77 (91.70%)	27.07 (91.7%)	6.77 (91.7%)	5.4-6.2 (83.3%)*	
Ferdinand VI	1746	27.07 (91.70%)	6.77 (91.70%)	27.07 (91.7%)	6.77 (91.7%)	5.4-6.2 (83.3%)*	
Carlos III	1760	27.07 (91.70%)	6.77 (91.70%)	27.07 (91.7%)	6.77 (91.7%)	5.4-6.2 (82.6%)*	
	1772	27.07 (91.70%)	6.77 (91.70%)	27.07 (91.7%)	6.77 (91.7%)	5.4-6.2 (82.6%)*	Head Pistareen
Carlos IV	1788	27.07 (91.70%)	6.77 (91.70%)	27.07 (91.7%)	6.77 (91.7%)	5.4-6.2 (81.3%)*	
Ferdinand VII	1808	27.07 (91.70%)	6.77 (91.70%)	27.07 (91.7%)	6.77 (91.7%)	5.4-6.2 (81.3%)*	
War of Independence	1812-1821					5.4-6.2 (81.3%)*	
Iturbide Empire	1822-1823	27.07 (87.50%)	no	27.07 (90.30%)	6.77 (90.30%)	5.4-6.2 (81.3%)*	
First Republic	1824	27.07 (87.50%)	6.77 (87.50%)	27.07 (90.30%)	6.76 (90.30%)	5.4-6.2 (81.3%)*	
	Decimal Coinage	20 Peso		Peso		5.4-6.2 (81.3%)*	Pistareens stop 1854
Maximilian Empire	1864-1867	33.84 (87.50%)		27.07 (90.30%)			
2nd Republic	1863-1905	33.84 (87.50%)		27.07 (90.30%)			
Mexican Revolution	1913-1916			Various			
Estados Unitos Mexicanos	1916-			Various			

Philip IV debased Spanish silver by 20% in 1642, by taking his "King's Fifth" and minting coins with 20% less silver

1686 Spain introduced debased 2 reales at 5.4 grams not 6.8 grams called "plata provincial" for use in Spain

These were made with a roller press so appeared like a milled coin not a cob

Initialy these circulated only in Spain and full weight coins (called "plata nacional") struck in the New World

Eventually lightweight coins sent to New World and full weight stayed in Spain.

Lightweight 2 reales called pistareens needed 5 to make 8 reales. Regular weight 2 reales needed 4 to make 8 reales.

Pistareens first arrived in the America in 1725. Word came from diminutive of peso

Pistareens were rolled or milled coins. 2 reales Mexican coins were cobs until 1732

Pistareens made with Habsburg shield obverse, and cross reverse, called "Cross Pistareen"

1772 pistareen changed to Habsburg shield with bust reverse, called "Head Pistareen"

Pistareens circulated especially in southern states and Caribbean till 1830s

Southerners preferred cut pistareens for small change, Northerners preferred coppers.

Spain stopped minting pistareens in 1854

Philip V issues (1700 - 1746) 83.33% fine

Charles III (1759 - 1788) initially 82.6%, and later 81.3% fine

Ferdinand VII (1808 - 1833) 81.3% fine

US GDP, population, and labor costs from 1790 to 2017. Courtesy of measuringworth.com

Year	Nominal GDP millions of $	Real GDP millions of 2012 $	GDP Deflator Index 2012=100	Population Thousands	Nominal GDP per capita Current $	Real GDP per capita yr 2012 $	Cost of unskilled labor Index 1860=100	Production worker hourly nominal $
1774	$0	$0	0	0	$0	$0	33	
1775	$0	$0	0	0	$0	$0	35	
1776	$0	$0	0	0	$0	$0	32	
1777	$0	$0	0	0	$0	$0	35	
1778	$0	$0	0	0	$0	$0	36	
1779	$0	$0	0	0	$0	$0	31	
1780	$0	$0	0	0	$0	$0	41	
1781	$0	$0	0	0	$0	$0	43	
1782	$0	$0	0	0	$0	$0	39	
1783	$0	$0	0	0	$0	$0	36	
1784	$0	$0	0	0	$0	$0	34	
1785	$0	$0	0	0	$0	$0	44	
1786	$0	$0	0	0	$0	$0	40	
1787	$0	$0	0	0	$0	$0	48	
1788	$0	$0	0	0	$0	$0	48	
1789	$0	$0	0	0	$0	$0	42	
1790	$189	$4,568	4.14	3,929	$48	$1,163	37	$0.02
1791	$206	$4,842	4.25	4,048	$51	$1,196	43	$0.02
1792	$225	$5,199	4.33	4,172	$54	$1,246	43	$0.02
1793	$251	$5,612	4.47	4,299	$58	$1,305	48	$0.03
1794	$315	$6,354	4.96	4,429	$71	$1,435	45	$0.03
1795	$383	$6,758	5.67	4,563	$84	$1,481	63	$0.03
1796	$417	$6,972	5.98	4,701	$89	$1,483	62	$0.04
1797	$409	$7,113	5.75	4,844	$84	$1,468	61	$0.03
1798	$413	$7,417	5.57	4,990	$83	$1,486	69	$0.04
1799	$442	$7,941	5.57	5,141	$86	$1,545	52	$0.04
1800	$480	$8,393	5.72	5,297	$91	$1,585	60	$0.04
1801	$514	$8,802	5.84	5,461	$94	$1,612	71	$0.04
1802	$451	$9,079	4.97	5,632	$80	$1,612	75	$0.04
1803	$487	$9,232	5.27	5,809	$84	$1,589	57	$0.04
1804	$533	$9,591	5.56	5,991	$89	$1,601	72	$0.05
1805	$561	$10,100	5.55	6,180	$91	$1,634	62	$0.05
1806	$617	$10,577	5.83	6,379	$97	$1,658	86	$0.05
1807	$589	$10,587	5.56	6,588	$89	$1,607	69	$0.05
1808	$646	$10,610	6.09	6,797	$95	$1,561	68	$0.05
1809	$687	$11,422	6.01	7,009	$98	$1,630	104	$0.05
1810	$706	$12,055	5.86	7,224	$98	$1,669	88	$0.05
1811	$767	$12,603	6.09	7,436	$103	$1,695	91	$0.05
1812	$786	$13,106	6	7,651	$103	$1,713	92	$0.05
1813	$969	$13,851	7	7,867	$123	$1,761	87	$0.05
1814	$1,078	$14,431	7.47	8,085	$133	$1,785	97	$0.05
1815	$925	$14,547	6.36	8,308	$111	$1,751	92	$0.05
1816	$819	$14,546	5.63	8,540	$96	$1,703	111	$0.05
1817	$769	$14,884	5.17	8,790	$87	$1,693	93	$0.05
1818	$737	$15,425	4.78	9,057	$81	$1,703	72	$0.05
1819	$726	$15,723	4.62	9,335	$78	$1,684	75	$0.05
1820	$710	$16,352	4.34	9,618	$74	$1,700	67	$0.04
1821	$735	$17,223	4.27	9,899	$74	$1,740	74	$0.05
1822	$805	$17,875	4.5	10,189	$79	$1,754	68	$0.05
1823	$759	$18,522	4.1	10,488	$72	$1,766	80	$0.05
1824	$754	$19,620	3.84	10,795	$70	$1,817	78	$0.05
1825	$822	$20,498	4.01	11,115	$74	$1,844	68.9	$0.05
1826	$866	$21,227	4.08	11,449	$76	$1,854	68.9	$0.05
1827	$916	$21,886	4.19	11,797	$78	$1,855	68	$0.05
1828	$897	$22,182	4.04	12,158	$74	$1,824	67	$0.05
1829	$930	$23,025	4.04	12,525	$74	$1,838	68	$0.06
1830	$1,022	$25,142	4.06	12,901	$79	$1,949	67	$0.06
1831	$1,052	$27,217	3.87	13,277	$79	$2,050	65	$0.06
1832	$1,129	$29,057	3.89	13,676	$83	$2,125	67	$0.05
1833	$1,158	$29,951	3.87	14,086	$82	$2,126	68.9	$0.06
1834	$1,219	$30,455	4	14,504	$84	$2,100	75.7	$0.05
1835	$1,340	$32,071	4.18	14,917	$90	$2,150	75.7	$0.05
1836	$1,479	$33,021	4.48	15,340	$96	$2,153	78.6	$0.05
1837	$1,554	$33,323	4.66	15,790	$98	$2,110	92.2	$0.06
1838	$1,598	$34,702	4.6	16,224	$99	$2,139	77.7	$0.06
1839	$1,661	$35,593	4.67	16,656	$100	$2,137	81.6	$0.06
1840	$1,574	$35,691	4.41	17,120	$92	$2,085	69.9	$0.06
1841	$1,652	$36,490	4.53	17,612	$94	$2,072	73.8	$0.06
1842	$1,618	$37,656	4.3	18,124	$89	$2,078	75.7	$0.06
1843	$1,568	$39,522	3.97	18,641	$84	$2,120	78.6	$0.06
1844	$1,702	$41,768	4.07	19,157	$89	$2,180	77.7	$0.06
1845	$1,859	$44,412	4.19	19,708	$94	$2,253	75.7	$0.06
1846	$2,065	$48,020	4.3	20,313	$102	$2,364	74.8	$0.06
1847	$2,410	$51,289	4.7	20,987	$115	$2,444	69.9	$0.06
1848	$2,427	$53,018	4.58	21,706	$112	$2,443	83.5	$0.07
1849	$2,419	$53,755	4.5	22,464	$108	$2,393	81.6	$0.06
1850	$2,581	$56,252	4.59	23,261	$111	$2,418	82.5	$0.06
1851	$2,724	$60,780	4.48	24,095	$113	$2,523	81.6	$0.06
1852	$3,066	$67,799	4.52	24,999	$123	$2,712	86.4	$0.07
1853	$3,311	$73,343	4.51	25,911	$128	$2,831	85.4	$0.07
1854	$3,713	$75,875	4.89	26,856	$138	$2,825	90.3	$0.07
1855	$3,975	$79,039	5.03	27,727	$143	$2,851	93.2	$0.07
1856	$4,047	$82,213	4.92	28,497	$142	$2,885	94.2	$0.07
1857	$4,180	$82,634	5.06	29,298	$143	$2,820	99	$0.07
1858	$4,093	$85,978	4.76	30,068	$136	$2,859	93.2	$0.08
1859	$4,425	$92,203	4.8	30,780	$144	$2,996	101.9	$0.08
1860	$4,387	$93,146	4.71	31,513	$139	$2,956	100	$0.08
1861	$4,643	$94,805	4.9	32,215	$144	$2,943	102	$0.08
1862	$5,844	$106,586	5.48	32,889	$178	$3,241	106	$0.09
1863	$7,698	$114,782	6.71	33,607	$229	$3,415	121	$0.10
1864	$9,549	$116,084	8.23	34,376	$278	$3,377	138	$0.11
1865	$9,977	$119,408	8.36	35,182	$284	$3,394	145	$0.11
1866	$9,081	$113,929	7.97	36,052	$252	$3,160	145	$0.11
1867	$8,424	$115,883	7.27	36,970	$228	$3,135	145	$0.11
1868	$8,224	$120,403	6.83	37,885	$217	$3,178	146	$0.11
1869	$7,921	$123,679	6.4	38,870	$204	$3,182	146	$0.11
1870	$7,812	$127,371	6.13	39,905	$196	$3,192	142	$0.11
1871	$7,665	$133,430	5.74	41,010	$187	$3,254	142	$0.12
1872	$8,309	$144,596	5.75	42,066	$198	$3,437	143	$0.12
1873	$8,837	$156,931	5.63	43,225	$204	$3,631	136	$0.12
1874	$8,563	$159,785	5.36	44,429	$193	$3,596	131	$0.12
1875	$8,239	$159,500	5.17	45,492	$181	$3,506	125	$0.12
1876	$8,388	$166,103	5.05	46,459	$181	$3,575	118	$0.11
1877	$8,604	$174,368	4.93	47,400	$182	$3,679	114	$0.11
1878	$8,460	$179,970	4.7	48,319	$175	$3,725	111	$0.11
1879	$9,449	$200,947	4.7	49,264	$192	$4,079	109	$0.11
1880	$10,462	$217,601	4.81	50,262	$208	$4,329	116	$0.11
1881	$11,740	$244,810	4.8	51,466	$228	$4,757	120	$0.11
1882	$12,331	$257,803	4.78	52,893	$233	$4,874	123	$0.11
1883	$12,435	$264,932	4.69	54,435	$228	$4,867	128	$0.11
1884	$11,896	$260,564	4.57	55,826	$213	$4,667	130	$0.12
1885	$11,705	$261,466	4.48	57,128	$205	$4,577	128	$0.12
1886	$12,297	$282,732	4.35	58,258	$211	$4,853	129	$0.12
1887	$13,273	$303,271	4.38	59,357	$224	$5,109	132	$0.13
1888	$14,000	$320,708	4.37	60,614	$231	$5,291	138	$0.13
1889	$13,987	$329,923	4.24	61,893	$226	$5,331	138	$0.13
1890	$15,223	$361,975	4.21	63,056	$241	$5,741	138	$0.13
1891	$15,558	$366,254	4.25	64,432	$241	$5,684	138	$0.13
1892	$16,514	$384,917	4.29	65,920	$251	$5,839	138	$0.13
1893	$15,566	$362,574	4.29	67,470	$231	$5,374	138	$0.14
1894	$14,280	$345,390	4.13	68,910	$207	$5,012	132	$0.13
1895	$15,754	$384,856	4.09	70,076	$225	$5,492	135	$0.13
1896	$15,643	$378,497	4.13	71,188	$220	$5,317	133	$0.13
1897	$16,309	$394,811	4.13	72,441	$225	$5,450	133	$0.13
1898	$18,263	$437,979	4.17	73,600	$248	$5,951	135	$0.13
1899	$19,694	$467,929	4.21	74,793	$263	$6,256	137	$0.13
1900	$20,766	$479,691	4.33	76,094	$273	$6,304	140	$0.14
1901	$22,484	$505,153	4.45	77,584	$290	$6,511	144	$0.14
1902	$24,294	$531,100	4.57	79,163	$307	$6,709	148	$0.15
1903	$26,180	$546,598	4.79	80,632	$325	$6,779	154	$0.15
1904	$25,928	$527,245	4.92	82,166	$316	$6,417	155	$0.15
1905	$29,066	$586,735	4.95	83,822	$347	$7,000	157	$0.16
1906	$31,336	$610,728	5.13	85,450	$367	$7,147	165	$0.16
1907	$34,178	$626,420	5.46	87,008	$393	$7,200	172	$0.17
1908	$30,423	$558,695	5.45	88,710	$343	$6,298	164	$0.16
1909	$32,540	$599,077	5.43	90,490	$360	$6,620	166	$0.17
1910	$33,746	$605,528	5.57	92,407	$365	$6,553	172	$0.18
1911	$34,675	$625,147	5.55	93,863	$369	$6,660	168	$0.18
1912	$37,745	$654,436	5.77	95,335	$396	$6,865	171	$0.19
1913	$39,517	$680,269	5.81	97,225	$406	$6,997	179	$0.20
1914	$36,831	$628,184	5.86	99,111	$372	$6,338	180	$0.20
1915	$39,048	$645,310	6.05	100,546	$388	$6,418	182	$0.20
1916	$50,117	$734,793	6.82	101,961	$492	$7,207	224	$0.24
1917	$60,278	$716,618	8.41	103,414	$583	$6,930	279	$0.29
1918	$76,567	$781,251	9.8	104,550	$732	$7,473	351	$0.36
1919	$79,090	$787,520	10.04	105,063	$753	$7,496	409	$0.43
1920	$89,246	$780,160	11.44	106,461	$838	$7,328	469	$0.54
1921	$74,314	$762,274	9.75	108,538	$685	$7,023	388	$0.48
1922	$74,140	$804,604	9.21	110,049	$674	$7,311	357	$0.44
1923	$86,238	$910,549	9.47	111,947	$770	$8,134	393	$0.48
1924	$87,786	$938,586	9.35	114,109	$769	$8,225	406	$0.51
1925	$91,449	$960,634	9.52	115,829	$790	$8,294	404	$0.50
1926	$97,885	$1,023,405	9.56	117,397	$834	$8,717	409	$0.51
1927	$96,466	$1,033,289	9.34	119,035	$810	$8,681	418	$0.52
1928	$98,305	$1,045,131	9.41	120,509	$816	$8,673	420	$0.52
1929	$104,600	$1,109,400	9.43	121,878	$858	$9,103	431	$0.52
1930	$92,200	$1,015,100	9.08	123,188	$748	$8,240	424	$0.53
1931	$77,400	$950,000	8.15	124,149	$623	$7,652	407	$0.51
1932	$59,500	$827,500	7.19	124,949	$476	$6,623	355	$0.45
1933	$57,200	$817,300	7	125,690	$455	$6,503	356	$0.44
1934	$66,800	$905,600	7.38	126,485	$528	$7,160	424	$0.53
1935	$74,200	$986,200	7.52	127,362	$583	$7,743	439	$0.54
1936	$84,800	$1,113,300	7.62	128,181	$662	$8,685	445	$0.55
1937	$93,000	$1,170,300	7.95	128,961	$721	$9,075	506	$0.63
1938	$87,400	$1,131,600	7.72	129,969	$672	$8,707	520	$0.64
1939	$93,400	$1,222,400	7.64	131,028	$713	$9,329	527	$0.64
1940	$102,900	$1,330,200	7.74	132,122	$779	$10,068	542	$0.67
1941	$129,300	$1,565,800	8.26	133,402	$969	$11,737	604	$0.74
1942	$166,000	$1,861,500	8.92	134,860	$1,231	$13,803	686	$0.86
1943	$203,100	$2,178,400	9.32	136,739	$1,485	$15,931	757	$0.98
1944	$224,400	$2,351,600	9.54	138,397	$1,621	$16,992	791	$1.05
1945	$228,000	$2,328,600	9.79	139,928	$1,629	$16,641	813	$1.06
1946	$227,500	$2,058,400	11.05	141,389	$1,609	$14,558	900	$1.13
1947	$249,600	$2,034,800	12.27	144,126	$1,732	$14,118	1,017.00	$1.30
1948	$274,500	$2,118,500	12.96	146,631	$1,872	$14,448	1,087.00	$1.41
1949	$272,500	$2,106,600	12.94	149,188	$1,827	$14,120	1,131.00	$1.46
1950	$299,800	$2,289,500	13.09	151,684	$1,976	$15,094	1,184.00	$1.55
1951	$346,900	$2,473,800	14.02	154,287	$2,248	$16,034	1,283.00	$1.72
1952	$367,300	$2,574,900	14.26	156,954	$2,340	$16,405	1,358.00	$1.83
1953	$389,200	$2,695,600	14.44	159,565	$2,439	$16,893	1,450.00	$1.94
1954	$390,500	$2,680,000	14.57	162,391	$2,405	$16,503	1,521.00	$1.97
1955	$425,500	$2,871,200	14.82	165,275	$2,575	$17,372	1,584.00	$2.05
1956	$449,400	$2,932,400	15.33	168,221	$2,671	$17,432	1,662.00	$2.16
1957	$474,000	$2,994,100	15.83	171,274	$2,768	$17,481	1,745.00	$2.24
1958	$481,200	$2,972,000	16.19	174,141	$2,763	$17,067	1,830.00	$2.39
1959	$521,700	$3,178,200	16.41	177,130	$2,945	$17,943	1,903.00	$2.45
1960	$542,400	$3,260,000	16.64	180,760	$3,001	$18,035	1,976.00	$2.54
1961	$562,200	$3,343,500	16.81	183,742	$3,060	$18,197	2,047.00	$2.60
1962	$603,900	$3,548,400	17.02	186,590	$3,237	$19,017	2,114.00	$2.71
1963	$637,500	$3,702,900	17.22	189,300	$3,368	$19,561	2,181.00	$2.83
1964	$684,500	$3,916,300	17.48	191,927	$3,566	$20,405	2,245.00	$2.89
1965	$742,300	$4,170,800	17.8	194,347	$3,819	$21,461	2,314.00	$3.00
1966	$813,400	$4,445,900	18.3	196,599	$4,137	$22,614	2,399.00	$3.14
1967	$860,000	$4,567,800	18.83	198,752	$4,327	$22,982	2,515.00	$3.29
1968	$940,700	$4,792,300	19.63	200,745	$4,686	$23,873	2,660.00	$3.52
1969	$1,017,600	$4,942,100	20.59	202,736	$5,019	$24,377	2,822.00	$3.72
1970	$1,073,300	$4,951,300	21.68	205,089	$5,233	$24,142	3,021.00	$3.93
1971	$1,164,900	$5,114,300	22.78	207,692	$5,609	$24,624	3,265.00	$4.26
1972	$1,279,100	$5,383,300	23.76	209,924	$6,093	$25,644	3,499.00	$4.59
1973	$1,425,400	$5,687,200	25.06	211,939	$6,726	$26,834	3,734.00	$4.95
1974	$1,545,200	$5,656,500	27.32	213,898	$7,224	$26,445	4,008.50	$5.44
1975	$1,684,900	$5,644,800	29.85	215,981	$7,801	$26,136	4,353.57	$6.02
1976	$1,873,400	$5,949,000	31.49	218,086	$8,590	$27,278	4,768.12	$6.53
1977	$2,081,800	$6,224,100	33.45	220,289	$9,450	$28,254	5,150.13	$7.15
1978	$2,351,600	$6,568,600	35.8	222,629	$10,563	$29,505	5,569.88	$7.77
1979	$2,627,300	$6,776,600	38.77	225,106	$11,671	$30,104	6,041.50	$8.34
1980	$2,857,300	$6,759,200	42.27	227,726	$12,547	$29,681	6,649.90	$9.12
1981	$3,207,000	$6,930,700	46.27	230,008	$13,943	$30,132	7,208.77	$10.00
1982	$3,343,800	$6,805,800	49.13	232,218	$14,399	$29,308	7,588.43	$10.80
1983	$3,634,000	$7,117,700	51.06	234,333	$15,508	$30,374	7,913.85	$11.22
1984	$4,037,600	$7,632,800	52.9	236,394	$17,080	$32,288	8,201.54	$11.78
1985	$4,339,000	$7,951,100	54.57	238,506	$18,192	$33,337	8,484.52	$12.50
1986	$4,579,600	$8,226,400	55.67	240,683	$19,028	$34,179	8,647.23	$12.90
1987	$4,855,200	$8,511,000	57.05	242,843	$19,993	$35,047	8,838.23	$13.05
1988	$5,236,400	$8,866,500	59.06	245,061	$21,368	$36,181	9,175.44	$13.58
1989	$5,641,600	$9,192,100	61.37	247,387	$22,805	$37,157	9,484.36	$14.00
1990	$5,963,100	$9,365,500	63.67	250,181	$23,835	$37,435	9,878.16	$14.41
1991	$6,158,100	$9,355,400	65.82	253,530	$24,289	$36,901	10,255.46	$14.93
1992	$6,520,300	$9,684,900	67.32	256,922	$25,379	$37,696	10,531.36	$15.63
1993	$6,858,600	$9,951,500	68.92	260,282	$26,351	$38,234	10,811.98	$16.12
1994	$7,287,200	$10,352,400	70.39	263,455	$27,660	$39,295	11,099.67	$16.56
1995	$7,639,700	$10,630,300	71.87	266,588	$28,657	$39,875	11,446.31	$16.66
1996	$8,073,100	$11,031,400	73.18	269,714	$29,932	$40,900	11,842.48	$16.84
1997	$8,577,600	$11,521,900	74.45	272,958	$31,425	$42,211	12,255.15	$18.12
1998	$9,062,800	$12,038,300	75.28	276,154	$32,818	$43,593	12,681.97	$18.18
1999	$9,630,700	$12,610,500	76.37	279,328	$34,478	$45,146	13,097.00	$18.75
2000	$10,252,300	$13,131,000	78.08	282,398	$36,304	$46,498	13,597.00	$19.36
2001	$10,581,800	$13,262,100	79.79	285,225	$37,100	$46,497	14,428.00	$19.36
2002	$10,936,400	$13,493,100	81.05	287,955	$37,980	$46,858	14,655.00	$21.02
2003	$11,458,200	$13,879,100	82.56	290,626	$39,426	$47,756	15,146.00	$21.54
2004	$12,213,700	$14,406,400	84.78	293,262	$41,648	$49,125	15,146.00	$23.07
2005	$13,036,600	$14,912,500	87.42	295,993	$44,044	$50,381	15,448.00	$23.92
2006	$13,814,600	$15,338,300	90.07	298,818	$46,231	$51,330	15,826.00	$24.37
2007	$14,451,900	$15,626,000	92.49	301,696	$47,902	$51,794	16,166.00	$25.07
2008	$14,712,800	$15,604,700	94.28	304,543	$48,311	$51,240	17,110.00	$25.87
2009	$14,448,900	$15,208,800	95	307,240	$47,028	$49,501	17,148.00	$26.15
2010	$14,992,100	$15,598,800	96.11	309,794	$48,394	$50,352	16,770.00	$26.44
2011	$15,542,600	$15,840,700	98.12	312,098	$49,800	$50,756	17,034.00	$26.88
2012	$16,197,000	$16,197,000	100	314,374	$51,521	$51,521	17,790.00	$27.15
2013	$16,784,900	$16,495,400	101.76	316,598	$53,016	$52,102	17,827.44	$27.92
2014	$17,521,700	$16,899,800	103.68	318,953	$54,935	$52,985	18,431.76	$29.40
2015	$18,219,300	$17,386,700	104.79	321,323	$56,701	$54,110	18,582.84	$30.55
2016	$18,707,200	$17,659,200	105.93	323,668	$57,798	$54,560	19,036.08	$31.95
2017	$19,485,400	$18,050,700	107.95	325,983	$59,774	$55,373	19,640.40	$32.39

COLONIAL RULERS

ENGLISH RULERS

Elizabeth I	1558
James I	1603
Charles I	1625
Interregnum/Commonwealth/ Cromwell	1649
Charles II	1660
James II	1685
William & Mary	1688
Anne	1702
George I	1714
George II	1727
George III	1760
George IV	1820

SPANISH RULERS

Ferdinand & Isabella	1476
Charles & Joanna	1516
Philip II	1556
Philip III	1598
Philip IV	1621
Charles II	1665
Philip V	1700
Louis I	1724
Philip V retakes throne	1724
Ferdinand VI	1746
Charles III	1759
Charles IV	1788

FRENCH RULERS

Frances I	1515
Henry II	1547
Francis II	1559
Charles IX	1560
Henry III	1574
Henry IV	1589
Louis XIII	1610
Louis XIV	1643
Louis XV	1715
Louis XVI	1774
First Republic	1792

PORTUGUESE RULERS

Alfonso VI	1656
Pedro, regent then king	1667
Joao VI	1706
Jose I	1750
Maria I & Pedro III	1777

COLONIAL MONEY SYSTEMS

ENGLISH MONETARY SYSTEM

£1 = 20 shillings = 240 pence
1 shilling = 12 pence
1 penny = 4 farthings
1 crown = 5 shillings
1 florin = 2 shillings
1 guinea = 21 shillings
1 groat = 4 pence

SPANISH MONETARY SYSTEM

1 doubloon (doblon in Spanish) = 8 escudo (gold)
early on doubloon meant 2 escudos
1 escudo = 16 reales (silver)
1 real = 34 maravedi (copper)
1 pistareen = 4/5 of 2 reales
Piece of eight or Spanish milled dollar = 8 reales

FRENCH MONETARY SYSTEM

1 ecu d'or (gold) variable weight 3.5-12.2 grams
1 ecu = 3-9 livres (silver)
1 livre = 20 sols (billon) = 240 deniers
1 sol = 1 douzaine = 12 deniers (billon)
1 gros = 4 deniers (billon)
1 demi-sol = 6 deniers (copper) = 1 sixaine
1 Liard = 3 deniers (copper)
Franc circulated in 1500s at 1 livre until 1641, then reappeared as a decimal coin in 1795.

PORTUGUESE MONETARY SYSTEM

1 peca = 4 escudos (gold)
1 escudo (gold) = 1600 reis (silver)
1 cruzado = 480 reis (silver) (400 reis in Brazil)
1 moidore (gold) = 4,000 reis
1 Joao or Joe (gold) = 12,800 reis
1 dobrao = 1 Joao (gold) = 8 escudos
early on dobrao meant 2 escudos
1 Real (silver) = 120 reis

MORE METROLOGY

A. GENERAL WEIGHTS

TROY WEIGHTS used for precious metals

1 Troy lb. = 12 Troy oz = 5,760 grains
1 Troy oz = 20 pennyweight = 480 grains
1 pennyweight = 24 grains = 1.5552 grams
1 grain = 20 mites = 64.8 milligrams
1 mite = 3.24 milligrams
1 gram = 15.432 Troy grains
1 Troy oz = 31.1 grams
1 Troy lb. = 373.2 grams

The Troy weight system started in Troyes, France. A great market town, they had frequent medieval fairs. People would trade precious metals by weight, which Troyes codified. The system reached England in the 1300s. In 1570 the Troy pound displaced the Tower pound in England (see below).

The system of grains came from a grain of wheat. The Latin word uncia, means a twelfth part, hence, there are 12 oz to the Troy pound.

Jewels use the carat system, which is different, based on the weight of a carob seed, which weighs 0.2 grams.

In medieval times a marc (or mark) of silver was about 233 grams. The first mint in Mexico City in 1536 divided one mark into 67 reales, 3 for the mint workers, and 64 for minted coins. Thus, the Mexican real originally weighed 3.48 grams, and 8 reales 27.82 grams.

Dan Sedwick, the Spanish American coin expert, says the prescribed weight of 8 reales or 8 escudos was 27.468 grams until 1728 then was 27.0642. Silver fineness was 85% until 1556 then 93.1% until 1728, then 91.66%. By making 16 reales of silver equal to 1 escudo of gold this fixed the silver to gold weight ratio at 16:1.

The Tower pound was approximately 346 grams, so called because they kept the weight standard in the Tower of London. A Tower pound struck 240 pence, each weighing 1.44 grams (= 22.2 grains Troy, or 32 Tower grains). In 1158 Henry II set the alloy to sterling silver (92.5%). In 1570 the Troy pound superseded the Tower pound in Britain.

AVOIR DUPOIS WEIGHTS
used for base metals, goods and drugs
1 ton = 20 hundredweight = 2240 lbs.
1 metric ton = 1000 kg = 2204.6 lbs.
1 short ton = 2,000 lbs.
1 hundredweight = 112 lbs.
1 lb. = 16 oz (7,000 grains Troy)
1 oz = 16 drams (37.5 grains Troy)
2.2 lbs. = 1 kilogram
1 lb. = 453.6 grams

B. COIN WEIGHTS

Pound derives from the Latin pondus for weight. The French for weight is livre, derived from the Latin libra. Thus, livre has the same meaning as pound. We use lb. as an abbreviation of the word libra. Historically the British spoke of large payments in pounds of sterlings (silver coins), now shortened to pounds sterling.

The word **shilling** derives from old English Scilling, meaning a twentieth of a pound, and from the Proto-Germanic root skiljana meaning to divide.

Charlemagne the Great (768-814 CE) divided the troy pound (373 grams) of silver into 20 solidi (from the Latin for a silver coin) yielding deniers of 1.56 grams. By 1575 the denier deteriorated to 39 mg of actual silver weight! The word solidi morphed into the words sol and sous.

The word **penny** come from the old English peni, probably from the same Germanic root as pfennig. However, the letter used to denote a penny is d for the Roman denarius. The French denier also derives from the Latin denarius.

Here is a comparison of large silver monetary units:

Troy pound = 373.2 grams used for French coinage under Charlemagne.
Mark = 233 grams used for 8 pieces of 8 by the Spanish, with 3 extra reales for the minters pay. Some point to the fact that 233 grams is close to half a pound avoir dupois, but the word derives from Old Norse mörk for “unit of weight”.
The Tower pound = 346 grams used for a pound of English coinage.
Avoir dupois pound = 453.6 grams, not used for precious metal.

GENERAL BIBLIOGRAPHY

- Betts, Charles W., *American Colonial History Illustrated by Contemporary Medals*. Scott Stamp and Coin Company, NY, NY 1894 (Available as Kessinger Legacy Reprint)
- Bowers, Q. David, *Whitman Encyclopedia of Colonial and Early American Coins*. 2009. Whitman Publishing, Atlanta , GA.
- Breen, W. *Walter Breen's Complete Encyclopedia of US and Colonial*
- *Coins.* 1988 Doubleday, NY.
- Crosby, S. *The Early Coins of America*. Published by the Author Boston 1875.
- Dickeson, M.W., *The American Numismatical Manual*. Lippincott & Co., Philadelphia, 1865.
- Eckfeldt, J.R., DuBois, W.E., *A Manual of Gold and Silver Coins of All Nations, Struck Within the Past Century.* Philadelphia Assay Office, Philadelphia 1842.
- Hickcox, J.H., *An Historical Account of American Coinage*. Albany and London. 1858.
- Kenny, R. *Struck Copies of Early American Coins.* Wayte Raymond Inc. NY. 1952
- Mossman, Philip L., *Money of the American Colonies and Confederation*. ANS, NY, NY. 1993
- Mossman, P., *From Crime to Punishment. Counterfeit and Debased Currencies in Colonial and Pre-Federal America.* Numismatic Studies 27.ANS, NY. 2015Nipper, Will, *In Yankee Doodle's Pocket*. Bowmanstone Press, Conway AR. 2008
- Snelling, T., *Snelling On the Coins of Great Britain, France and Ireland &c. M. Young*. The Horn Tavern, London 1769
- Snelling, T., *Miscellaneous Views of the Coins ….Including those in the West Indian Colonies*….London 1769.
- Vlack, Robert A., *Early American Coins*. 2nd Edition. Windsor Research Publications, Inc., Johnson City, NY 1965
- Yeoman, R.S., Ed. Bressett, K. *Guide Book of United States Coins*.1947 and 2020. Whitman Publishing LLC Pelham, AL 35124

General ANS Publications

- Newman, E., and Doty R., Editors. *Studies on Money in Early America*. ANS, NY 1976
- Coinage of the Americas Conference 1991 Kleeberg, J. Editor. *Money of Pre-Federal America*. ANS, NY. 1991
- Coinage of the Americas Conference.1994 Doty, R., Editor *The Token: America's Other Money.* ANS, NY. 1994
- Coinage of the Americas Conference. 1995. Mossman, P., Editor. *Coinage of the American Confederation Period*. ANS, NY. 1995

Journals

- Colonial Newsletter, now called Journal of Early American Numismatics. Published biannually by American Numismatic Society, New York. CD of back issues available for $50, and cumulative index on line.
- C4 Newsletter. Published quarterly by Colonial Coin Collectors Club www.colonalcoins.org Index is available online, and accessible at Newman Numismatic Portal.

On line

- www.coins.nd.edu Extensive information about colonial coins updated by Louis Jordan, Associate University Librarian of Notre Dame University
- C4 Journal on line at www.colonialcoins.org
- Newman Numismatic Portal www.nnp.wustl.edu
- The Numismatist (general not colonial numismatics) available for American Numismatic Association members at www.money.org
- American Numismatic Society www.numismatics.org have a searchable database of coins called MANTIS
- Heritage Auctions have searchable database of coins sold at www.HA.org, if you register you can also see prices realized.
- Stacks Bowers also have a searchable database of coins sold at www.StacksBowers.com, if you register you can see prices realized.

SPECIALTY BIBLIOGRAPHY

Communion Tokens

- Bason, A. A., Communion Tokens of the US. Self-published, Greensboro N.C., 1989

Conder Tokens

- Dalton, R., and Hamer, S., *The Provincial Token-Coinage of the 18th Century Illustrated.* Alan Davisson reprint, Cold Spring, MN 1990.
- Doty, R., *The Soho Mint and the Industrialization of Money.* Smithsonian, Washington DC. 1998.

Connecticut Copper

- Ryder, H., *The State Coinages of New England*. American Numismatic Society. New York 1920

Counterfeit Halfpence

- Moore, R.., Howes, J., Bowser, B., *Contemporary Counterfeit Halfpenny and Farthing Families: Volume One.* Colonial Collectors Coin Club. www.colonialcoins.org 2018

Foreign Circulating Coins.

- *Coins of England and the United Kingdom, Pre-decimal Issues.* Spink, London, 2020.
- Duplessy, J., *Les Monnaies Francaises Royales de Hugues Capet a Louis XVI.* 2 volumes. Maison Platt, Paris, 1999.
- Krause, C., and Mishler, C., *Standard Catalog of World Coins Spain Portugal and the New World.* Krause Publications, Iola, WI, 2002.
- Sedwick, D. & F., *The Practical Book of Cobs*. 4th Edition www.sedwickcoins.com 2007

French

- Coinage of the Americas Conference 1992. Kleeberg, J., editor. *Canada's Money*. ANS, NY, 1992
- Martin, S.F., *French Coinage Specifically for Colonial America*. The Colonial Coin Collectors Club www.colonialcoins.org 2015

- Vlack, R.A., *An Illustrated Catalogue of the French Billon Coinage in the Americas*. Colonial Coin collectors club www.colonialcoins.org. 2004

Fugio

- Newman, E., United States Fugio Copper Coinage of 1787. Ipsilanti, MI, 2007.
- Newman, E., *The Continental Currency Coinage and Varieties of the Fugio Cent*. (pamphlet) Durst Publications, NY, 1982.
- McDowell, C., *Abel Buell and the History of the Connecticut and Fugio Coppers*. C4 Publications, 2015

Indian Trade Silver

- Appleton, V., Editor. *The Covenant Chain, Indian Ceremonial and Trade Silver*. National Museum of man Ottawa, Canada. 1980.
- Carter, W.H., *North American Trade Silver.* Hothem House, Lancaster, Ohio. 1996.
- Hamilton, M.W., *Silver in the Fur Trade 1680-1820*. Martha Hamilton Publishing, Chelmsford, MA. 1995.

Massachusetts Silver

- Clarke, H.F., *John Hull, a builder of the Bay Colony.* AW Pollock & Co, Wolfeboro, New Hampshire 1993.
- Felt, J.B.,Historical Account of Massachusetts Currency Reprint Burt Franklin, NY 1968
- Jordan, Louis. *John Hull, the Mint and the Economics of Massachusetts Coinage*. Colonial Coin Collectors Club. Lebanon NH. 2002.
- Newman, Eric P., *The Secret of the Good Samaritan Shilling.* ANS New York, 1959.
- Noe, Sydney, *"The Silver Coinage of Massachusetts"*. Quarterman Publications, Lawrence, MA. 1973 (contains ANS material from 1943 to 1947)
- Salmon, Christopher *"The Silver Coins of Massachusetts*". ANS New York 2010.

Massachusetts Copper

- Demling, M.A., *Massachusetts Coppers. A comprehensive analysis and attribution guide of Massachusetts colonial coppers.* 2015. Privately published.
- Ryder, H., *The State Coinages of New England*. American Numismatic Society. New York 1920
- Ryder, H., *The Copper Coins of Massachusetts.* Durst reprint, NY. 1981

New Jersey Copper

- Demling, M., The New Jersey Coppers. A Comprehensive Analysis and Attribution guide of new Jersey Coppers. Self published. 2011 newjerseycoppers@comcast.net
- Douglas, D.G., *The Copper Coinage of the State of New Jersey*. ANS 2003.
- Maris, E., *A Historic Sketch of the Coins of New Jersey With a Plate*. Self-published, Printed by William Bellows, Philadelphia, 1881.
- Ryder, Hillyer, *The Colonial Coins of Vermont*, Edmund Slafter rewrite 1975 Sanford Durst, NY 1981.
- Siboni, R.S., Howes, J.L., Ish, A.B., *New Jersey State Coppers*. ANS and C4. New York, 2013.

Paper money

- Anderson, William G., *The Price of Liberty.* University Press of Virginia, Charlottesville, VA 1983
- Newman, E., *The Early Paper Money of America*. Fifth Edition. Krause Publications, Iola, WI. 2008.

Rosa Americana

- Martin, Sydney. *The Rosa Americana Coinage of William Wood.* 2011 C4 Publications, www.colonial coins.org
- Nelson, P., The Coinage of William Wood 1722–1733. Spink and Son Ltd., London. 1959.

St. Patricks

- Martin, S., Saint Patrick Coinage. C4 Publications The Colonial Coin Collectors Club. www.colonialcoins.org 2018

Vermont Copper

- Bressett, Kenneth E., *Vermont Copper Coinage, in Studies on Money in Early America* Chapter 11 pp 173—198, ANS, NY 1976
- Carlotto, Tony. *The Copper Coins of Vermont.* Colonial Coin Collectors Club. Bookcrafters, Chelsea, MI. 1998.

Virginia

- Newman, E.P., *Coinage for Colonial Virginia* Numismatic Notes and Monographs No. 135. American Numismatic Society, New York, 1956.

Voce Populi

- Nelson, P., *The Coinage of Ireland in Copper, Tin, and Pewter, 1460 – 1826.* . W.M. Murphy, Liverpool. 1905.

Washingtonia

- Musante, N., *Medallic Washington*. 2 volumes. Spink, London, 2016.

Wood's Hibernia

- Martin, Sydney. *The Hibernia Coinage of William Wood 1722-1724.* C4 Publications, www.colonial coins.org
- Nelson, P., The Coinage of William Wood 1722–1733. Spink and Son Ltd., London. 1959.

Sources of Books

- Abebooks.com
- Amazon.com
- American Numismatic Society www.numismatics.org
- ANA Summer Seminar Book Sale. Must attend in person
- Charles Davies www.numisbook.com
- Colonial Collector's Coin Club www.colonialcoins.org
- Kolbe and Fanning Numismatic Booksellers www.numislit.com
- Commercial Booksellers e.g. Whitman Publishing www.whitman.com

JOURNALS OF CONTINENTAL CONGRESS COLLECTION

Leo Shane, the C4 Librarian, introduced me to another somewhat unusual way of collecting. In 1776 the Journals of the Continental Congress specified which coins would be acceptable to pass in the new America. They listed 27 coins, much taken from Sir Isaac Newton's assay tables of 1702. Newton's contributions as a physicist and mathematician are well-known to any schoolboy, but few know that the Crown also appointed him Director of the Royal British Mint.

To trade with other countries, he assayed the fineness of and weights of samples of 44 foreign silver and 12 foreign gold coins. Two years later Queen Anne issued a proclamation that established rates for coins in the colonies. He compared each silver coin to the equivalent weight of English sterling silver pence. One point of confusion is that the Mint used one troy ounce of sterling silver to produce 62 not 60 pence. 60 pence were minted and 2 pence were kept by the Mint for seignorage.

The discussion started in 1776, recorded in page 724-727 of the Journals of Continental Congress, volume V. They struck out several sentences:

The committee to whom was recommitted the report of the committee appointed to ascertain the value of the several species of gold and silver [coins] current in these states, and the proportion they and each of them bear and ought to bear to Spanish milled dollars, brought in their report, which was read:

The Committee, to whom was recommitted a report from a Committee appointed to ascertain the value of the several species of gold and silver current in these states, and the proportion they and each of them bear and ought to bear to Spanish milled dollars, have taken the same into consideration and thereupon come to the following resolutions:

Whereas, the holders of bills of credit emitted by authority of Congress will be entitled at certain periods, appointed for redemption thereof to receive out of the Treasury of the United States the amount of the said bills in Spanish milled dollars, or the value thereof in gold and silver; and the value of such dollars is different in proportion as they are more or less worn, and the value of other silver, and of gold coins, and also of bullion, when compared with such dollars, is estimated by different rules and proportions in these states, whereby injustice may happen to individuals, to particular states, or to the whole Union as well in paiments into, as out of the Treasury, which

ought to be prevented by declaring the precise weight and fineness of the s'd Spanish milled dollar ~~which is to be considered as the American~~ now becoming the Money-Unit or common measure of other coins in these states, and by explaining the principles and establishing the rules by which ~~other coins and bullion~~ the said common measure shall be applied to other coins and to bullion in order to estimate their comparative value ~~be thence known and estimated~~ at the s'd Treasury.

Resolved, that it is the opinion of this Committee that all paiments made into or out of the said Treasury ought in good faith to be ~~measured~~ estimated by the Spanish milled dollar, otherwise called the Pillar piece of eight, as it comes from the mint, new and unworn; ~~and that~~ in ~~such~~ which state it's ~~absolute~~ weight is 17 dwt. 9 grs. Troy weight, ~~which is made up of six~~ containing sixteen pennyweight, one grain, fourteen and an half mites of fine silver, and one pennyweight, seven grains, five and an half mites of fine copper alloy; ~~and that according to the usual course of merchandize neither the said alloy nor the charges of coinage are estimated in the value of coin or bullion and that the value of all coins and of bullion as estimated in commerce is in proportion to the quantity of fine metal they contain, without regard to workmanship, or the alloy mixed therewith.~~ but that according to the course of merchandize neither the said alloy nor the expences of coinage should be considered as any addition to the value of the said coin.

Resolved, that it is the opinion of this Committee that all ~~gold~~ silver coins or bullion paid into or out of the sd treasury ought to be estimated in such paiment according to the quantity of fine silver they contain.

Resolved, that it is the opinion of this Committee that all gold coins or bullion paid into or out of the said treasury ought to be estimated in such paiment according to the quantity of fine gold they contain and the proportion~~al value~~, which the value of fine gold bears to that of fine silver in those foreign markets at which these states will probably carry on commerce; but as the said proportion is different at ~~different~~ those markets, it is further the opinion of this committee that the several proportions at the said markets ~~before mentioned~~ should be averaged and such averaged proportion be observed at the said treasury.

Resolved, that it is the opinion of this Committee, after due enquiry made, that the several proportions between the value of equal weights of fine silver and ~~of an equal quantity weight~~ of fine gold, at the said

markets ~~before mentioned~~, is at prosent, when averaged nearly as one to fourteen and ~~three fourths~~ one half, and that this proportion should be observed at the sd treasury. but as in long tracts of time the proportional values of gold and silver at market are liable to vary, whenever such variation shall have become sensible, this house ought to make a corresponding charge in the rates at their treasury.

Resolved, that it is the opinion of this committee, after due enquiry made into the fineness of the coins ~~below~~ hereafter mentioned, that taking into consideration the quantity of fine ~~metal~~ gold or silver they contain, and the proportional value before mentioned between equal weights of ~~gold~~ fine gold and fine silver, their values expressed ~~in Dollars, or Units and Decimals~~, by decimal notation in Dollars and parts of a dollar are as follows:

	Proportion of fine metal.	Weight.	Fine metal.	Value in Dollars.	Weight equivalent to dollar.	Value of a dwt. in dollars.
SILVER COINS	*oz. dwt.*	*dwt. grs.*	*dwt. grs.*		*dwt. grs.*	
The Pillar piece of eight, or Spanish milled dollar	[a]11 2	17 9	16 1.725	1	17 9	0.057553
The old Ecu of France, of 60 sols Tournois, or French crown	[a]11 1	17 12	16 2.75	1.002657	17 18.886	.057294
The English Crown	[a]11 2	19 8.5	17 21.675	1.113941	17 9	.057553
The English shilling	[a]11 2	3 20.9	3 13.935	.222788	17 9	.057553
The English sixpence	[a]11 2	1 22.45	1 18.967	.111394	17 9	.057553
GOLD COINS	*Carats. grs.*					
The old Spanish Double Doubloon	21 23½	17 8	15 20.972	14.321335	1 5.047	.826230
The old Spanish Pistole	21 23½	4 8	3 23.243	3.580333	1 5.047	.826230
[The Johannes of Portugal. The half Johannes.][b]						
The Double Moeda of Portugal	21 23½	6 22	6 7.95	5.712085	1 5.061	.825836
The Moeda of Portugal	21 23½	3 11	3 3.975	2.856017	1 5.061	.825836
The old Louis d'or of France	21 23½	4 8	3 23.243	3.580333	1 5.047	.826230
The new Louis d'or of France	21 22½	5 5.4	4 18.623	4.308871	1 5.102	.824664
The English Guinea of William III	22 0	5 9.438	4 22.651	4.460301	1 5.020	.827014
The English half Guinea of William III	22 0	2 16.719	2 11.325	2.230150	1 5.020	.827014
The Hungary Ducat	23 2	2 5.666	2 3.616	1.940355	1 3.658	.867736
The Ducat of Holland, coined ad legem Imperii of Campen in Holland of the bishop of Bamberg of Brandenburgh of Sweden of Denmark	23 2	2 5.5	2 3.456	1.934329	1 3.658	.867736
of Poland	23 2	2 5	2 2.975	1.916251	1 3.658	.867736
of Transylvania	23 1½	2 4.75	2 2.689	1.905493	1 3.683	.866954
of the Duke of Hanover	23 2	2 5.25	2 3.216	1.925288	1 3.658	.867736
The Double Ducat of the Duke of Hanover	23 2	4 10.5	4 6.432	3.850581	1 3.658	.867736
Chequins of Venice	23 3½	2 5.75	2 3.837	1.948631	1 3.583	.870086

[a] In the pound weight. [b] These words are struck out.

and that the said coins when of the ~~absolute~~ weight there stated should be paid and received at the said treasury for so many Dollars and parts of a dollar as is there expressed, and when of a greater or lesser

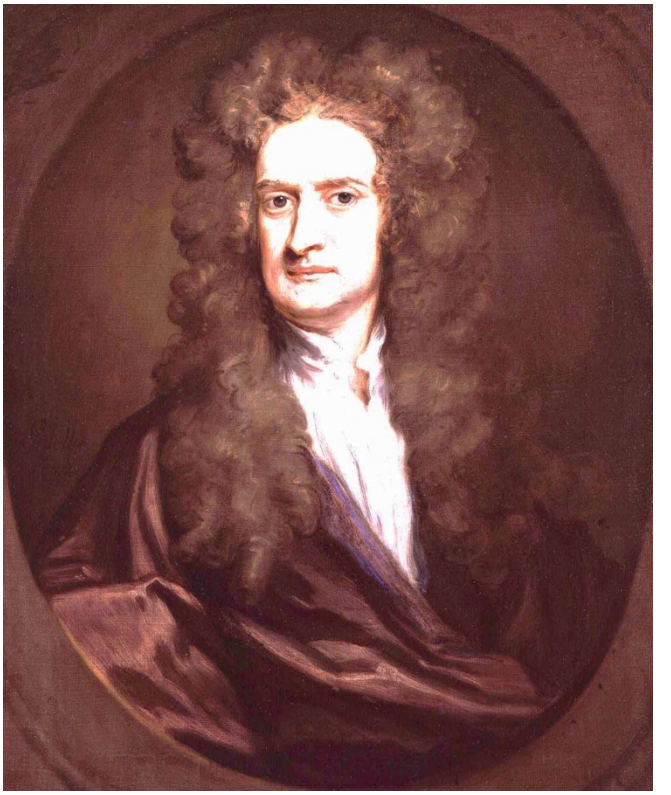
weight should be paid and received for a proportionably greater or lesser number of dollars and parts of a dollar.

Resolved, that all ~~other~~ silver coins not specially named in the sd table, and all silver bullion, ~~should be paid and received at the sd Treasury~~ paid or received at the said treasury, be estimated ~~in receipt and paiment at the sd treasury~~ in dollars and parts of a dollar in proportion to the fine silver they respectively contain; and all gold coin ~~and bull.~~ not specially named, and gold bullion, be estimated in dollars and parts of a dollar in the compound ratios of the quantity of fine gold they contain, and of the afore mentioned proportion between the value of equal weights of fine gold and fine silver and that no ~~value be put~~ allowance be made in either case for the value of the alloy nor for the charges of coinage or workmanship.

Resolved, that assays should be made as soon as conveniently may be of the fineness of such other coins not stated in the ~~aforesaid~~ said table as are in circulation within these states, and that they should be inserted in the said table, together with their values in Dollars and parts of a dollar, in order to render the same more full and adequate to the purposes of public convenience.

And whereas, the credit of the said bills as current money ought to be supported at the full value therein expressed by the inhabitants of these states, for whose benefit they are issued, ~~at the full value therein expressed,~~ and who stand bound to redeem the same according to the like value, and the pernicious artifices of the enemies of American liberty to impair the credit of the said bills by raising the nominal value of gold and silver ought to be guarded against and prevented.

The full text is given here, but the all important thing is the table specifying the coins. I have already pictured several of these coins in Chapter 29 — "Common Foreign Colonial Trade Coins", so will only picture those already not pictured ("Following" in the table).



Sir Isaac Newton by Godfrey Kneller

References

https://en.wikipedia.org/wiki/Isaac_Newton#/media/File:Sir_Isaac_Newton_by_Sir_Godfrey_Kneller,_Bt.jpg

CONTINENTAL CONGRESS 1776 JOURNAL

(From page 726 of W.C.Ford's edition Volume V)

Item#	Coin	Notes	Weight grams	Fineness	Value in Dollars	Got	WHERE SHOWN
#1	Pillar Dollar, or Spanish Milled Dollar	8 Reales	27.02		1.000	#540	See chapter 29
#2	Old French Ecu of 60 sols Tournois or French Crown		27.22		1.003	#1820	Following
#3	English Crown	5 shillings	30.10		1.114	#1737	See chapter 29
#4	English shilling		6.02		0.223	#2237	See chapter 29
#5	English sixpence		3.01		0.111	#1505	See chapter 29
#6	Old Spanish Doubloon	8 Escudo	26.96	0.917	14.321	#2069	See chapter 29
#7	Old Spanish Pistole	2 Escudo	6.74	0.917	3.580	#1760	See chapter 29
#8	Portuguese Johannes (New England Double Joe)	Word struck out12,800 reis	28.68	0.917	20.300	#2113	See chapter 29
#9	Portuguese half Johannes (New England Joe)	Word struck out 6,400 reis	14.34	0.917	10.150	#1504	Following
#10	Double Moeda of Portugal	4,000 reis	8.07	0.917	5.712	#1761	Following
#11	Moeda of Portugal	2,000 reis	4.03	0.917	2.856	#2307	Following
#12	Old Louis d'Or	aux 8 L's	6.69	0.917	3.580	#2315	See chapter 29
#13	New Louis d'Or	aux lunettes	8.16	0.917	4.310	#2305	Following
#14	William III Guinea (can substitute other King)		8.35	0.917	4.460	#1867	See chapter 29
#15	William III half guinea (can substitute other King)		4.18	0.917	2.230	#2299	Following
#16	Hungary ducat	Trade coinage	3.46	0.986	1.940	#2291	Following
#17	Holland ducat "ad legem imperii"	Trade coinage	3.49	0.986	1.934	#1582	See chapter 29
#18	Holland Kampen ducat	Trade coinage	3.49	0.986	1.934	#2292	Following
#19	Ducat of Bishop of Bamberg, German State	Trade coinage	3.49	0.986	1.934	#2534	Following
#20	Ducat of Brandenburgh-Ansbach, German State	Trade coinage	3.49	0.986	1.934	#2436	Following
#21	Swedish ducat	Trade coinage	3.49	0.986	1.934	#2750	Following
#22	Denmark ducat	Trade coinage	3.49	0.986	1.934	#2290	Following
#23	Poland ducat	Trade coinage	3.50	0.986	1.916	#2737	Following
#24	Transylvania ducat	Trade coinage	3.50	0.986	1.905	#2408	Following
#25	Duke of Hanover ducat, (Brunswick-Luneberg, Germany)	Trade coinage	3.50	0.986	1.925	#2569	Following
#26	Duke of Hanover double ducat	Trade coinage	7.00	0.986	3.850	#2674	Following
#27	Chequin of Venice	Trade coinage			1.949	#2155	Following

1820

FRANCE, 1701 Silver Ecu Overstruck on Ecu aux Palmes, Hence crown on King and two lines below Crowned Circle. Louis XIV (1643 - 1715). Bust / Crowned Circle. Dupl 1533B; 41mm, 27.10Grams AEF

1504

BRAZIL Rio, ("HALF JOE" in America). 6400 Reis, 1773R. Jose I (1750-77). Bust / Arms.
"Clipped and Re-castainganated". Ex Eric Goldstein 1.8% light. KM-172.2; 32mm, 14.07Grams EF45

1761

BRAZIL, Bahia, 4000 Reis. 1719 B. ("Moidore") Joao V (1706 - 50). Shield / Cross. KM-106; 29mm, 10.75Grams FDC

2307

BRAZIL, Joao V (1706-1750). 2,000 Reis 1715 Brazilian Cross w/ B for Bahia Mint. KM105; 4.76 Grams, 22.5mm EF

2305

Gold Louis d'Or Aux Lunettes. Louis XV (1715-1774) P Mint (Dijon). Gadoury 340; 24mm, 8.09 Grams GVF

2299

William III (1694-1702) Gold Half Guinea 1700. S3468; 21mm, 4.10 Grams GVF

2299

Hungary Ducat 1749 Franz I, CA Mint (Vienna). Fr-187; 21mm, 3.46 Grams AU

2292

CAMPEN HOLLAND DUCAT 1646 FERDINAND III. FR-161 22MM NGC EF

2534

Bamberg Ducat 1697. Archbishop Lothar Franz Von Schonborn. Fr-168e; 21mm, 3.45 Grams AU

2436

BRANDENBURG-ANSBACH DUCAT 1726 CHRISTIANE CHARLOTTE (1723-1729). FR-340; 23MM, 3.42 GRAMS AU

2750

Swedish Ducat 1632 King Gustav Adolph II (1611-1632). Fr-33 var; 24mm, 3.49 Grams AU

2290

Denmark Ducat Courant (87.5% not 97.9% Gold) 1758. Frederik V (1746-1766). Fr-262; 21mm, 3.12 Grams EF

2737

Polish Ducat. King Wladislav III (1434-1444) of Poland & Hungary. Fr-13 under Hungary; 21.7mm, 3.28 Grams VF+

2408

Transylvania Ducat 1584. Sigismund Bathori (1581-1602). Fr-295 (Hungary); 22mm, 3.46 Grams VF

2569

Duke of Hanover (Brunswick-Luneberg) Ducat 1733. Ludwig Rudolf (1714-1735). Fr-683; 21mm, 3.46 Grams UNC

2674

Anton Ulrich, Duke of Hanover (Brunswick-Luneberg) Double Ducat 1707. Fr-648; 27mm, 6.82 Grams VF Ex-Mount

2155

Venice Zecchino "Chequin" Domenico Contarini (1659-1675/4). Fr-1332; 22mm, 3.52 Grams EF

INDEX

13 star reverse Washington 450
15 deniers 112-3
15 deniers 1692 pic 117
1664 comet 547
1692 15 deniers pic 117
1700 VP causes 199
1765 stampees 95-103
1767 sou 104
1776 New Hampshire 236-8
1776 state coinage 236-8
1791 cents 444
1792 Mint Coinage Act 308
2 escudo cob picture 501
3 headed halfpenny 239-42
5 moidore picture 519
5 sols Gloriam Regni pic 87
5 sols regular issue pic 85
8 reales 23, 36, 184
8 Reales cob pic 23, 35
9 deniers 88-94
9 deniers 1721 B pic 94
9 deniers 1721 H pic 92
9 deniers 1722 H pic 93
9 deniers coins 92-4

- A -

A wheel goes round 179
Abnaki Indians and ITS 492
Abney, Thomas 309
Account books 485
Actual Federal Coinage 9
Addorsed Ls 113
Advancement Act 23-4
Advertising tokens 547
African head 257, 259, 261
Age of Reason 471-2
Aix-la-Chapelle medal pic 71
Aix-la-Chapelle treaty 71, 134
AK numbers 286
Albion Cox & Coat 308
Alex Storm pic 137
Alexander, William 289
Algonquin Indians ITS 492
All-seeing-eye 467-8
Allegory Hibernia59,197, 213
Allegory of Hibernia pic 199
Allen, Ethan & Ira 387
Allen, Ira 384
Allotrope 30
Alteration of Mint Act 432
American Archives 236
American Congress 425
American counterfeits 286
American Fur Company 529
American Museum 425
American Revolution220,309
Amsterdam Stck Exch pic122
Amsterdam Stock Exch 122
Amy, Thomas 545
Anal fistula 83
Ancient & Hon Art Co 148
Andros, Sir Edmund 156
Andros, Sir Edmund pic 156
Anglo-Dutch War 150, 154 538, 548
Annapolis 183, 185
Anne Hyde 209
Annealing copper 390
Annesley 187
Anthony, Charles 535
Anthony, Thomas 535
Anti-counterfeiting devices 486
Antimonians 148
Anton and Kesse 286
Anvil die 85
Aortic dissection 70
Apostasy 152
Aquidneck Island 227-8
Arabic Cypher 229
Aranjuez treaty 111
ARC 132
Arellano, Juan Ramirez 23
Ark ship 17
Articles of Confederation 429
Artifact Recov & Conserv132
Artillery Co 151
Ashley-Cooper,Sir Anthony 542
Assiniboine Indians ITS 492
Aston, S. Yorkshire 25
Astor, John Jacob 528-9
Asylum to oppressed 469
Atkins and Kesse 286
Atlee Group III 287
Atlee patterns for Machin 275
Atlee, James 258, 260, 272 274,277,308,385-6,391,417
Atlee, Samuel, brewer 272, 277
Auctori Plebis 466-7
Austrian Succession War 70,220
Avalon map 16
Avalon peninsula 15, 16
Avoirdupois ounce 40
Avoirdupois weight system 562
Awls, metal 491
Aztecs 483

- B -

Baby head 385-7
Backdated cents 444, 449
Backdating 151, 157, 197-8 521, 531
Bailey, John 187, 275, 306-7 310
Bailey-Atlee Group II 287
Ballicane 187
Baltimore 183
Baltimore & Ohio RR 312
Baltimore 6d pic 26
Baltimore coins 15-25
Baltimore shilling picture 28
Baltimore sixpence picture 29
Bank of England picture 544
Bank of New York 309, 424
Bank of United States 123
Bank, Sarah 404-5
Banking in MBC 156
Banque Générale 125-6
Banque Royale note 125
Banque Royale note pic 125
Baptism 153
Baptists 146
Bar Coppers 232-4
Bar coppers pictures 233-4
Barry, Col. Standish 185
Barry, Edward 197
Barton John 56
Barton, Mathew, King's clerk 42
Bassett Hardware Co. 424
Bates, William 187
Bath metal 40
Battle of Boyne pic 211
Battle of Severn, MD 20
Battle of Sheriffmuir 212
Battle of Worcester 20
Beaded circle 164
Beaver fur 150, 487-9, 523,529
Beaver River 523
Beaver state 527
Begon, Michel Intendnt 90,133
Belcher, Johnathan 176
Belize 107
Bentley, Anne 240
Berkeley, Earl of 57, 187
Bermuda 534
Bermuda Monetary Auth 535
Bermudez, Juan 534
Betts medals 9, 222
Betts, Wyllys 424

Biennial pairing 261
Bill of Exchange 484-5
Bill of Exchange diagram 484
Billets d'Etat 124
Billets de Monnaie 124
Billon 95-6, 111
Billon cent 432
Billon coins 110-121
Billon neuf sols 112-3
Billonnage 112-3
Bills of credit 485
Birch, Robert 432
Birch, William 432
Birmingham coppers 78, 95, 97
Bishop Richard Watson 402
Bishop, Edwin 174
Bishop, Samuel 255, 261
Black doggs 95-6, 104 107,111
Black River 523
Blagge, John 422
Blasphemy 152
Blondeau, Peter 157, 194
Bloody Mary 209
Bluestone, Barney 80
Bog iron 163
Bolen Higley copies 180
Bolen, John Adams 180, 232
Bollan, William 71
Bonnie Prince Charlie 70 198-9, 209-119
Bonnie Prince Charlie pic212
Books on Mass silver 157
Bookshop Boston 148
Boston Bay shillings 169
Boston maps 143-4
Boston Mint 157
Boston mob pic 156
Boston neck 243
Boston Pub Latin School 147
Boudinot, Elias 309
Boulton, Matthew 472, 521
Boulton & Watt 422, 430
Boulton, James 445
Boulton, Matthew picture 473
Bowdoin, James 243
Bowers restrikes 402
Bowers, Q. David 8
Boyd, FCC 310
Boyish head VP 198
Boyne, Battle of pic 211
Bradstreet, Gov. Simon 155
Brahma 239
Brand, Virgil 260
Brandywine Creek 303
Brasher 271-2, 275
Brasher Doubloon 275
Brasher, Ephraim 306, 310
Brass foundries 40
Brass splasher 192, 194
Brazil & Portugal trade coins 500
Breda treaty 154
Breen Encyclopedia 8
Breen table for Voce Pop 208
Breen-Bressett numbers 385
Breen, Walter 259
Brewery Mint 272, 277, 308
Brindley, James 288
Briot, Nicholas 157, 193
Brisbane, Capt. John 228
Bristol 40
Bristol Mint 42
Britannia mule 273, 385-6
Britannia reverse CT 259
Britannia/Vermont mule 384-5
British halfpennies 9
Broad shoulders CT 261
Bronze 30
Brooches 492
Brookes, David 272
Broome & Platt 257, 261,424-5
Broome, Samuel 259, 422, 424
Brown Bess 489
Bubbles 127
Bubonic plague 190
Buccaneer 154
Buell map of America 423
Buell, Abel 255-9, 261, 385 388, 421
Buell, Benjamin 259-61, 423
Buell, William 258, 385, 388 390, 421-3
Bungtown 198, 272, 286
Bunker Hill 288
Burke, Edmund 471
Burr, Aaron 303, 306
Bushnell GSS 173-4
Bushnell GSS pic 173
Bushnell sale 198
Bushnell, Charles I 173, 232 256-7, 310, 410, 424
Business in colonies 486
Bust dollar 498-9
Bust dollar picture 504
Butler, James 189, 190, 194
Buttrey, Theodore 110

- C -

C/M douzain pic 116
C4 Newsletter 310
Calamine 40
CALI holdings 132
Callender, Joseph 243, 450
Calvert coat of arms 16
Calvert, Cecil pic 17
Calvert, George pic 15
Calverts 15-25
Camac token 529
Cambist 500
Camp, Caleb 305
Campin, R. 466
Canadian Blacksmith Tokens 286
Canadian coppers 531
Canadian silversmiths 493
Caorthannach 191
Cape Breton Island 70-1
Cape Cod Canal 291
Capt. John Mason 15
Carat weight system 562
Cardinal Henry IX of York 212
Caribbean 12, 483, 534
Carlotto, Tony 384, 387-90
Carolina coffee house 544
Carolina Mines Company545
Carolina token 540
Carolina token picture 546
Carolina&Lord'sProprietors544
Carteret, Sir George 187
Cartier, Jacques 82
Cartographer 423
Cartophile 423
Cartwheel pennies 445
Casks of Hardware 198
Cassiterite 30
Cast coppers 197
Cast counterfeits 286
Castaing machine32,157, 500
Castorland jeton picture 524
Castorland map 523
Castorland restrikes 525
Castorland token 523
Cates, John 153, 155
Catherine of Braganza 209
Catholic Confedern. 189, 194
Catholicism 210
Cavelier, Réné 111
Cayenne 2 sous 107-9
Cayenne Billon pic 109
Cayenne copper coins 108-9
Cayenne Copper picture 108
Cayenne map 107

Cent 411
Centering dot 164
Central America wreck 111
Cents, Washington 180
Cephas Kent Inn 386
Ceres 525
Chain across Hudson 288
Chalmers shilling picture 186
Chalmers silver 183-186
Chalmers, James 183
Chalmers, James Jr. 183
Chalmers, John 183
Chameau reef 133, 135
Chameau rock 134
Champlain, Samuel 82
Chandler 187
Chapman bros 173, 198,257,310
Characteristics, Rocker 163
Charles I 544
Charles I picture 188
Charles II 489, 538
Charles II crown picture 35
Charles II picture 153
Charleville 489
Charriere, Henri 107
Charter Oak 156
Chassanis, Pierre 523, 525
Chatham Token pic 221
Chatham, Earl of 221
Chazel, Wm Intendant 132-3
Cherokee Indians 492
Chesapeake Bay 16
Chevel, Pierre 85
China company 125
Circular flow model 123
Circular relief definition 444
Clarke, Richard 24
Clasped-hand imagery184,186
Classification French coins 14
Clinton, George272-3,276,288
Clipping coins 150
CoatArmsWorshipCoBlack 179
Cob 498
Cohen & Bros Banking House 79
Cohen Israel = Jacob J. 79
Cohen Jacob I 79
Cohen, Bertha 80
Cohen, Col Mendes pic 79
Cohen, Col. Mendes 79-80
Coin definition 444
Coin shortage 531
Cokesbury College 183
Col. Williamsburg Foundn 80
Colbert, Jean-Baptiste 83-4, 86
Colbert, Jean-Baptiste pic 86
Colburn, Jeremiah 240
Cold flan 159
Coley, William 273, 384-7, 391
Collis restrike 451
Collis, Albert 451
Collots 104
Colonial agent 469
Colonial America 485
Colonial companies 486
Colonial New Letter 310
Colonial paper money 485-6
Colonial shilling 36, 78
Colonial tokens 9
Colonies, American 483
Colonist's incomes 486
Comet 1664 547
Committee of Safety 220
Commodity bills 485
Commodity money 483-497
Common Sense 471-2
Communion token pic 553
Comp des Indes Orientale125
Compagnie d'Occident 124-5
Compagnie de Chine 125
Compagnie des Indes 83
Company Coining Coppers 422
Concord battle 78
Conder book 473
Conder token list 473
Conder tokens 445-82, 531
Conder, James 445
Condict, Silas 306
Confederatio 417
Confederation contract 417
Congress dollar 405
Connecticut charter 153, 157
Connecticut constitution 157
Connecticut coppers 255-70,422
Connecticut series 467
Constable & Rucker 411
Continental Army button 232
Continental Congress 183
222, 422, 429
Continental Currency 222
236, 403, 421, 429
Continental Dollar 402-409
Continental medal 421
Continental soldiers 227
Contoured Crowned C pic 98
Coode, Col John 24
Copper Company mules 521
Copper hill 176
Copper Miner's Company545
Copper Mint Company 422
Copper mountain 89
Copper Panic 1789 244, 258
274, 305
Corn 150
Cornwall 30
Corra 191
Cortez, Hernando 491
Cotton, Rev. John 146
Couchant lion 32
Counterfeit British ½ d 271
Counterfeit halfpence 70, 78
Counterfeit wampum 491
Country money 487
Country pay355,150, 430,487
Coureurs de bois 488, 492
Cousteau, Jacques 134
Covenant Chain 492
Covenanters, Scottish 188
Cowes 17
Cox 273
Cox & Bayliss 468
Cox, Albion 273, 277, 303
306-9, 432-3
Cox, Jemima 307
Cox, Maria 309
Cox, Merle & Co 307-8
Cox, Robert 307-9
Cradock, William 177
Cree Indians ITS 492
Creek Indians 492
Crescentia 16
Croker, John 30, 41
Cromwell 20
Cromwell half-crown pic 189
Crosby Sylvester 7, 71, 78
176, 178, 198
Cross pistareen picture 36
Crown 499, 561-2
Crown picture 508
Crown size coins 35
Crowned C 95-7, 107
Crowned C B'ham cft pic 101
Crowned C oval/blank pic102
Crowned C straight pic 100
Crowned C/Sou Marqué pic 99
Cruickshank, Robert 493
Crumbs for Antiquarians 256
Crusados 25, 561
Crying up 24, 31, 111
CT Historical Soc 262
Culloden medal 77
Culloden medal Yeo pic 77
Culloden, Battle of 212

Cuper's Cove 15
Cupid and Psyche 538
Cupper's cove map 16
Current money 487
Curse of Cromwell 190
Cut down silver 184
Cut pistareen 499
Cut pistareen picture 36, 506
Cut silver coins 36

- D -

D'Estaing, Admiral 228
D&H 444-5, 466-82
Dalton & Hamer 444-5, 466-82
Danforth, Brian 41
Daniel Friedus 237
Dann burial site 487
Dartmouth, Lord 76
Davis, Edward 450
DBL 258
Death of Bonnie Prince pic 214
Debtor's prison 303, 305,308-9
Decad 417
Decimal coinage 429-30
Declaration of Indulgence210
Decoration 492
Dedham 243
Delaware Indians ITS 492
Deliverance ship 534
Denarium 27
Denier 84, 112, 499, 561-2
Denominations St. Patricks 193
Diabetes 83
Dickeson restrikes 402,405,535
Dickeson, Montroville 256,310
Die combinations 385
Die failure 385
Die linkage chart 385
Différents 85, 91
Dilution effect 126
Dinwiddie, Gov. Robert 75
Disme 431
Distribution of NJ coppers 314
Doblon 498
Dobra 500, 561
Dobrao 500, 561
Doctrine of Transubstantiation 210
Dominion New England 156
Donat, Jean 91
Dorchester 147
Dorothea, Sophia of Celle 37
Dorset accords 387
Dotcom bubble 127
Double chin CT 261
Double dating 41
Double head cent 444, 449
Double Joe 500
Double Joe picture 520
Double Louis d'Or pic 140
Double rose 40-1
Doubloon 498, 561-2
Douzain C/M pic 116
Douzains 112, 561
Dove ship 17
Dowry in pine tree shillings 155
Dragon 191
Draped Bust Washington 444
Drapier's letters 42, 56, 57-9
Drogheda massacre 190
Dromedaire ship 90
Drop hammer press 41
Droz, Pierre 422, 430
Druid token 445
Dublin city Arms pic 192
Duc d'Orléans 124
Ducat picture 513
Ducatoon 24, 35
Dudley, Benjamin 307-8
410-1, 429
Duer, Col. William 259, 261
422, 424
DuFour, Jean-Baptiste 85
Duke of Orléans 88
Duke of Orléans pic 88, 125
Duke of York 538, 542
Duke York Cardinal 212
Dummer, Jerimiah 152
Dunmore, Lord 76, 78
Dunsmore, Lord pic 76
Dupuytren's 41
Dutch 483
Dutch East India Co 128, 227
Dutch trade coins 499
Dutch traders 487
Dutch wampum 491
Duval, Pierre 91
Duvivier, Pierre 523
Duvivier, Pierre picture 523
Dynastic wars Europe 220

- E -

Eagleton, Catherine 404
Ear wheels 492
Earl de la Ware 534
Earrings 492
East India Co 125
East/West Jersey map 187
Easterling 150
Easton hoard 80
Eaves, Thomas 306
EB punch 272
ECCE GREX 192
Eckfeldt, Adam 431
Eckfeldt, John 411
Eco, Umberto 40
Ecu 23, 24, 35, 84, 561-2
Ecu 8L le Chameau pic 141
Ecu d'or 561
Ecu picture 24, 35, 518
Ecu shield Le Chameau pic 142
Edward Wynne, Captain 16
Edwards, Dr. F.S. 180
Edwards, Pierpont 260, 262
EG 402
Ehrengard Schulenburg 37
Elasticity of money 123
Elbridge Gerry, 403
Elder restrikes 402
Elephant on coin 543
Elephant ship 90
Elephant token London pic 549
Elephant token NE 550
Elephant token planchets 542
Elephant token table 551
Elephant token weights 542
Elephant tokens 540-551
Elephants medieval times 547
Eli Whitney Museum 262
Elisha Gallaudet 402-4
Elizabeth, NJ 305
Elizabethtown 305, 308
Ellsworth, Col. John 310
Elizabethtown 303
End of Pain token 472
Endecott, Gov. John 152, 154
English counterfeits 286
English metrology 557
English monetary system 557
English rulers 561
English trade coins 499
Ephraim Getz 403
Equestrian statue 31, 32
Ermine 91
Escudo 561-2
Evasion coppers 70, 197-8
286, 466-7
Excelsior 272, 275-6
Exclusion Bill 1679 210
Expulsion diorama 190-1
Expulsion diorama pic 191
Eye of Providence 387

- F -

Fac similiter 172
Facsimile 172
Fagon, Guy-Crescent 124
Faithful Steward ship200, 287
Falkirk Battle of 212
Falun copper mine 89
Family tree Stuarts 209
Fane family 25
Father of the refrigerator 451
Fathom of wampum 490
Fawkes, Guy 34
Fayette, Marquis de la 303
Federal Coinage Act 257
Federal Mint 12
Federal Reserve system 123
Felicitas Britannia medal 405
Felt, Joseph 173
Fendall, Capt Josias 20, 21
Ferryland map 16
Ferryland, Newfoundland 16
Fire, Great of Boston 151
First American pattern 410
First Baptist Church 146
First Charter of Virginia 145
First Church Boston 146, 152
First silver coins 432-3
First US Mint coins 309
First US Mint employees 433
First US Mint picture309, 433
Five moidore picture 519
Fleur-de-lys C/S pic 116
Fleuron 260
Fleurs de lys counterstamp 112
Flint, Royal 424
FLOREAT REX 190
Floriate edge 405
Florida 12, 17
Florida proclamation pieces 552
Albany Church penny 552-4
Florida token 31
Florin 521, 561
Flowerdewe and Norton 76
Flute 132
Flute boat pic 89
Folkes, Martin 173
Fonerden's address 469
Force, Peter 236
Ford Mill 262
Ford, John Jr 110-111, 259
Ford, Sir Edward 194
Foreign circ. Coins 13, 14
498-520
Forms of money 485
Fort Montgomery 288
Fort Vancouver 528-9
Fort Vancouver Commem525
Fort Vancouver pictures 528
Fox 97
Fox Indians ITS 492
Fox, George 187
Foye, William 72
Fractional currency 183, 421
Fractnl reserve banking 123
Franc 561
Francisco Nestares Marin 23
Franklin penny 421
Franklin Press 466, 468-9
Franklin Press token 468-9
Franklin, Benjamin 12, 179
183, 432, 468-9, 488
Fraunces Tavern 469
Frecon, Monsieur 12
Freeman 149
Freemasonry 179, 467
Freidus, Dan 176, 237
French and Indian War 95
French Canada 9
French Change district 38
French coin classification 14
French Colonial 9
French Guiana & map 107
French metrology 558
French monetary system 561
French North America map 82
French rulers 561
French sou 1767 pic 105
French Sou 1767 w/RF pic 106
French trade coins 499-500
French W India Co 83, 90
French West Indies 97, 104
French West Indies map 82
Friends of Liberty 220
Frozen date 169
FUCIO 424
Fugio contract 306, 422
Fugios 257-9, 261, 402-3
421-8, 429
Fulbek Hall 25
Fulson, George 228
Functions of Money 485
Fur trade 488-9, 492, 527

- G -

Gallaudet, Elisha 402-4
Gangrene 83
Garrett collection 410
Garrett, John Work 310
Garrett, Robert 310
Garrett, T. Harrison 310, 312
Gates, Sir Thomas 534
GDP US since 1700s 560
Genius of America 384
George ship 147
George I picture 37
George III 256, 258, 260
Georgius III mules 385
Gervais, Elias 405
Getz 431
Getz half dollar 444
Gift exchange 492
Gilchrist, Charles 308
Gilders 25
Giles, James 272
Glass beads 491
Glassworks Boston 148
Gloriam Regni 5 sols pic 87
Gloriam Regni issues 82-7
Glorious revolution 32
Gloucester token 552
Goadsby, Thomas 273, 303
305-6, 308-10
Goatee head CT 261
Goddess of agriculture 525
Godless variety token 542
Goiter head 314
Gold coins 9
Gold to silver ratio 562
Goldstein, Erik 405, 500
Gomez de la Rocha 23
Good Samaritan shilling 172
Good Samaritan Shil pic 175
Goodrich, John 255-6, 260-1
Gorges, Sir Ferdinando145, 155
Gorgets 492
Gosnold, Capt. Bart 145
Gout 83, 221
Grains weight system 562
Granby coppers 176-182
Granby coppers pics 177-182
Grand Alliance War 24, 220
Grand Dauphin 88
Grate token 444, 447
Great Chain Commem 287-9
Great fire Boston 151
Great Fire of London 545,548
Great Migration 146-7
Great plague 543, 545, 547-8
Great Seal of US 467-8, 533
Greek cross 113

Gregorian calendar 177
Grenville, George 220-1
Gresham, Sir Thomas111,544
Gresham's Law 58, 111, 544
Grid Area & map 136
Grier, James 272
Groat 561
Gros 561
Groseilliers, Médard 488
Guinea gold 107, 499, 543, 561
Guinea picture 507
Guinea, George III pic 79
Gun money 211-219, 402
Gun money 1st, ½crown pic 216
Gun money 1st, Shilling pic 215
Gun money 2nd, ½crownpic 218
Gun money 2nd, Crown pic 219
Gun money 2nd, Shilling pic 217
Gunpowder 184
Guy Fawkes 34
Guy, John 15

- H -

Hagar Brook 388
Half dime 431-2
Half lion dollar 499
Half Mousquetaire pic 119
Half Sou Marqué pic 121
Half-crown picture 509
Hall, Thomas 260
Halsey 306
Hamerani medal pic 213
Hamilton, Alex 123, 261, 309 410, 429-30, 432
Hamilton, Dr. Alex 185
Hammered coinage 157
Hancock cents 444-6, 466
Hancock, John 431, 468
Hands of justice 104
Hannah Sewall 156
Hardening copper 390
Hardware 42, 43, 198
Harmon, Reuben 258, 273 384-7, 422
Harper, John 309, 431
Harris, Henry 41
Harvard 148, 154
Harvey, Thomas 37
Hathaway 306
Hawkins, Sir John 17
Hayms 172
Hays, William 260
HB monogram 491
HBC 489, 493, 527
Heated flans 160
Heath, Sir Robert 544
Hely-Hutchinson, John 199
Henrietta Maria 15, 209
Henry IX Cardinal Pic 214
Henry IX Duke York 212
Hercules head CT 257, 261
Hiawatha 491
Hibernia 41
Hibernia ½d 1722 Hrp L pic 63
Hibernia ½d 1722 Hrp R pic 62
Hibernia ½d 1723 Hrp R pic 64
Hibernia ½d 1723 Hrp R pic 65
Hibernia ½d 1723/2 H R pic 66
Hibernia ½d 1724 Hrp L pic 68
Hibernia ½d 1724 Hrp R pic 67
Hibernia ¼d 1723 Hrp R pic 60
Hibernia ¼d 1724 Hrp R pic 61
Hibernia allegory 59, 197, 213
Hibernia allegory pic 199
Hibernia coins 37, 56-69
Hibernia patent 38, 56
Hibernia Silver 1723 pic 69
Hidden initials NJ copper 307
Higley coppers 176-182
Higley coppers pics 177-182
Higley electrotype pic 182
Higley-Confed mule pic 181
Higley-Confederatio mule180
Higley, Capt. John 176
Higley, Dr. Samuel 176, 179
Higley, John 176
Hillhouse, James255-6, 261-2
Hillsborough, Lord 76
HMS Discovery 527
Hoar, Dr. Leonard 154
Hodder Baltimore dies 22
Hodder, Michael 110, 405
Hogge money 534-7
Hogge money pics 536-7
Holt plantation token pic 33
Holt's plantation token 30-34
Hooper, Edward 240
Hopkins, Joseph 255, 260-1
Horned bust CT 259
Hornless eagle 244
Hot air balloons 448
Hotchkiss, Silas 262
How coins are made 556
Howdah 543
Howe, Adm Richard 226,228
Howe, Gen William 229
Hubbing 422-3
Hudson Bay Co. 483,489,493,527
Hull Mint 151, 169
Hull Mint output 158
Hull, Edward 149
Hull, Elizabeth 147, 149
Hull, Hannah 154-5
Hull, John 493
Hull, John 147, 152, 154, 156 158, 159, 163-4, 169, 493
Hull, Judith 152
Hull, Robert 145, 147-8
Hull, Robert and Eliz 145
Huron Indians ITS 492
Hutchinson, Anne 148
Hyde, Anne 34

- I -

I cut my way through 179
Imitation British halfpence 197 273, 286-302
Imitation Irish ½ d pic 197
Immune Columbia mule 385-6
Immune Colum/Geo III 384-6
Immune Columbia 271-3, 417-20
Incas 483
Incomes in colonies 486
Indentured servants 20, 190
Indian alliances 492
Indian gift exchange 492
Indian giver 492
Indian Peace medal pic 497
Indian phrase book 146
Indian Trade Silver 491
Industrial revolution 445
Infanta Maria 15
Ingersoll 260
Inimica Tyranis 417
Inquisition 152
Intendant 83
Interregnum 20, 151, 538
Ireton, Maj Gen Henry190, 194
Irish rebellion 1641 193
Ironworks, Lynn 149
Iroquois 289, 491
Iroquois Indians ITS 492-3
Iroquois silversmiths 493
Isle of Man 194
ITS 491

- J -

J Jarvis & Co 261
J.E. Bassett hardware 424
Jackson, Andrew 123
Jackson, Elias 273, 384, 387
Jacobite Rebellion 212
James I 534
James II as General pic 211
James II picture 34
Japanese stock bubble 127
Jarvis, Benjamin 422
Jarvis, James 255-6, 259-60 273, 306, 421-6
JEAN 310
Jefferson, Thomas 78, 308 422, 429-432
Jenks, Joseph Sr. 154, 159
Jeton, Medal, Medalet 229
Joao 561
Joe 500, 561
Joe picture 520
John Guy 15
John Law 20 sol pic 131
John Law 6 deniers pic 130
John Law coins 129-131
John Law Liard pic 129
John Law pic 122
John Mason 15
John Norton and sons 76
Johnson, Burdette 310
Johnson, Esther 57
Joint Stock companies 486
Jordan, Louis 8
Joshua son of Uncas 155
Juan Ramirez de Arellano 23
Judith Point 152
Julian calendar 177

- K -

Keimer, Samuel 468
Keith, Sir William 468
Kelpy Cove 135
Kelpy Cove map 135, 136
Kempson & Wyons 444, 446-7 466-7,469-70
Kenny, Richard 174
Kentucky token 466-8
Ketland, Thomas 430
Ketlands 452
Kettle point picture 494
Kettle points 487
Keynes, John Maynard 123, 128
Kickapoo Indians ITS 492
King David 190-1
King George's War 70
King Philip 154-5
King Philip's War 154
King William's war 24
King's House tavern 538, 540
King's whore 37
Kings daughters 83
Kinney 306
Kiplin Hall, Catterick 20, 25
Kirkman & Holmes 309
Knox, Henry 288
Knoxville hoard 80
Kraljevich, John 70, 177, 405 490
Küchler, Conrad 521

- L -

La Louisianne 82, 97, 104 111, 125
La Rochelle 89-91, 132
La Rochelle map 133
Labor costs US since 1700s 560
Lady Washington sloop 243
Lake Ontario 523
Lammas Harold Standbroke 41
Landscape coppers 384-8
Lapidary machine 423
Large Pine tree 151, 164
Large Pine Tree 3d 168
Large Pine Tree 6d 167
Large Pine Tree Shlg pic 166
Laud, Wm Archbishop 146
Laughing head 259
Law cartoon pic 127
Law treatises 123
Law, John 88, 122-131
Lazun, French General 210
Le Chameau 89-90,132 – 142
Le Chameau 8L Ecu pic 141
Le Chameau ship pic 132
Le Chameau shield Ecu pic 142
Le Chameau wreck map 133
Le Papillon 107
Leavenworth, Eli, Maj. 256
Leavenworth, Mark 255-6
Lenape Indians 492
Les Indes Occidentales 82, 111
Leverett, John 155
Lewis and Clark 491
Lexington battle 78
LFRP 134
Liard 561
Liber Natus 271, 276
Liberty & Security 444, 446-7
Liddel, William Sheriff 305-6
Lima doubloon picture 502
Lima imitation 272
Limerick coins 211, 213
Limerick Treaty 211
Limeys 147
Lincoln, W.S. dealer 32
Lind, Dr. James 147
Lion dollar 24, 25, 35, 499
Lion dollar pic 24, 514
Lisard, Jean 91
Little Britain Street 308
Livre 84, 112, 499, 561-2
Lloyd's 111
Loan issue bills 485
London Company map 145
London Coat of Arms 543
London Coat of Arms pic 543
London Company 145
London Elephant token pic 541
Tower Mint 542
Long bust Voce Populi 198
Long bust VP P below pic 205
Long bust VP P below pic 207
Long bust VP P right pic 206
Long Parliament 188
Loon, van Dutch Medals 228
Lord Baltimore coins 15-25
Lord of Ireland 56
Lords Proprietors 544
Louis d'Or pic 139
Louis d'or picture 517
Louis XIV pic 83, 124
Louis XV pic 88
Louisbg Fort Recontrn Project 134
Louisbourg 70, 128, 133-6
Louisbourg map 70
Louisbourg, Siege of 70
Louisiana coins 88-94,104-9
Louisiana Cu 1721 B pic 94
Louisiana Cu 1721H pic 92
Louisiana Cu 1722 H pic 93
Louis XIV greets James II pic 210
Lovelace Tavern 538, 540
Lovelace, Francis 538
Luckenbooth brooch 491
Luckenbooth brooch pic 496
Louis XIV 83
Lunardi, Vicenzo 448
Lutwyche & Hancock 444, 447
Lynn ironworks 149
Lyons 95
Lyons mint 113

- M -

MacEachern 134
Machin Mint 390-1
Machin, Thomas 258 286-291, 307, 384-7
Machin's Mills 70, 78, 97 258-62, 271-4, 390-1, 422-4
Machin's Mills diagram 290, 424
Machin's Mills map 291
Machins coin groups 287
MacNeil, Ambrose 136
Mahican Indians ITS 492
Mailed bust 385-6
Mains de justice 104
Maltravers, Lord 75
Manhattan 154
Manillas 543
Mansfield, Sir James 521
Maple syrup 525
Maravedi 31, 561
Marc of silver 411,562
Marianne 523
Marin, Francisco Nestares 23
Marion Kent ship 134
Maris, Dr. Edward 188, 310, 312
Mark of silver 411,562
Mark Newby coins 187-196,312
Marquis de la Fayette 303
Marsh 305
Marston Moor battle 189
Martin, Sidney 56, 85, 90
Mary of Modena 4, 209
Mary, Royal Yacht 193
Maryland coinage 15-25
Maryland finances 23
Maryland mint 21
Maryland paper money 184
Maryland royal patent 16
Maryland silversmiths 183-186
Marylin B II boat 136
Mass Gen Court 164
Masatsuna, Kutsuki 227
Mason, Capt. John 15, 148,155
Masonry 291
Mass 1776 coin 239-42
Mass Bay Co MBC 145-51, 153
Mass Bay Colony 146
Mass General Court 148-150 153-4, 159, 163, 169, 243-4
Mass parchment issue pic 42
Mass silver table 157-8
Massachusetts 31
Massachusetts cent 243-254
Massachusetts seal 244
Massachusetts silver 22, 143-175
Massacre St. Bartholemew 36
Massasoit 154
Mast shiploads 150
Mather, Dr. Sam 176
Matrix 84
Maurepas, Count and pic 90
Maverick, Peter 275
Maypole and picture 56
Mazarin, Cardinal Jules 83
MBC 145-51, 153, 157
MBC Charter 148
MBL 258
MBR 258
McAllister, John 431
McCarthy, David 405
McDowell types of RISM 226
McLaughlin, Dr. John 525
McLeod, Harvey 135
McMinn, Francis 197-8
Measles 88
Medal 229
Medal definition 444
Medalet 229
Medalet definition 444
Medallion definition 444
Mehl, B Max 310
Meniere's disease 57
Mercantilism 86, 123, 158-9, 483-5
Merchant tokens 542
Merchants in MBC 156
Meredith, Hugh 468
Mermaid Ship 71-2
Mesopotamia 30
Messingham's Florelegium 192
Metacomet 154
Metalsmiths 30
Methodist Church 183
Metrology, general 557-562
Metrology Mas silver 158
Metrology St. Patricks 190
Mettawee River 388
Metz 95
Metz mint 113
Mexican metrology 559
Mexican silversmiths 493
Mezy, Gov 133
Mickley, Joseph 310
Middleton, Lord 59
Military Bust Washington 444
Mill Brook 387-8
Mill River, Hamden 262
Milled 8 reales 31
Milled coins 193
Miller, Henry 260
Millionaire 126
Mind your business 404
Mint & Coinage Act 308
Mint Act 430-1
Mint of Hull Boston 159-60
Miquelon 107
Mississippi bubble 122, 124, 127
Mississippi Co Graph 126
Mississippi company 125-8
Misspellings 405
Model Army Cromwell 189
Modern era NJ 310
Mohawk Indians ITS 492
Mohegans 148, 155
Moidore 500, 561
Moidore picture 519
Molesworth, Viscount 59
Molson bottles 135
Molyneaux, Margaret 37
Money changer 500
Money of account 35,150 430, 485
Montague, Capt. William 71-2
Montgolfier brothers 448
Montgomery Maj. Gen pic 303
Moon 179
More, Richard 534
Morpain, Capt. Pierre 133, 135
Morris Cove 257
Morris, Gouverneur 410
Morris, Robert 410, 429-31
Morristown Mint 259-61, 273 307
Morristown, NJ 306
Morton and Eden 25, 26
Mossman, Philip 8, 72
Mossop, William Jr. 531
Mott token 531-3
Mott token picture 532
Mott, Jordan 533
Mott, William and John 533
Mould-Atlee Group I 287
Mould, Lydia 306-7
Mould, Martha 306
Mould, Walter 259, 262, 305 417
Moulton, William 236
Mountain in labour 472
Mousquetaire picture 118
Mousquetaire, half picture 119
Mousquetaires 95, 110, 112-4
Mohawk, NY 291

Murray, Lord George 212
Musante, Neil 180
Musket balls 150, 489
Musketeer & picture 113
Mutton head 257
Muxes 491
Myddelton token & pic 521-22
Myddelton, Philip 521

- N -

Nail making machine 450
Nails 489-90
Narragansets 146, 148, 155, 491
National Banking Act 123
Navajo Indian silver 493
Navarre arms 113
Navigation Act 150, 154, 156, 484
NE coins & shilling picture 159
NE silver 151
Nelson 1 Voce Populi pic 201
Nelson 11 Voce Populi pic 205
Nelson 12 Voce Populi pic 206
Nelson 13 Voce Populi pic 207
Nelson 2 Voce Populi pic 202
Nelson 3 Voce Populi pic 203
Nelson 9 Voce Populi pic 204
Nelson Act 303
Nelson table for Voce Pop 208
Nelson, Philip 198
New Amsterdam 538
New England Co 145-6
New England coffee house 544
New England Company 545
New England token 540
New Hampshire 236-8
New Haven 256-7, 259
New Haven Mint 306, 385
New Haven restrikes 424
New Jersey copper picture 314
New Jersey coppers 303-383, 468
New Jersey map 188
New Jersey Mints diagram 311
New Jersey Mints picture 305
New Jersey plate picture 313
New Jersey seal 312
New Model army 189
New Netherland 483
New Netherland Coin 310
New plate 25, 150
New style calendar 124, 147, 177
New style dating 41
New York Copper Act 271
New York coppers table 274
New York State arms 275
New York State coins 271-302
New York State Motto 275
New York Theater 466
New York Waterworks 404
New Yorke token pic 539
Newburg, NY 274, 291, 385
Newby large Patrick pic 196
Newby small Patrick pic 195
Newby, Mark 187, 194
Newby, Mark coppers 187-196
Newcastle, Duke of 43
Newfoundland & map 15-16
Newgate prison 176
Newman hot dies 32
Newman, Eric 75, 79, 172 310, 450
Newton, Sir Isaac 56, 58, 75
Niantic Indians 148
Nicholas, Robert 76-7
Nicholls, Richard 538
Nine deniers 88-94
Nipper, Will 8
NJ copper pictures 319-383
NJ provenance chains 310
NJ struck over Triumpho 488
Noirs 95-6, 111
Non Vi Virtute 271-2, 275
North American token 529-31
North American token pic 530
Northwest Co token pic 526
Northwest Company 493, 525-9
Northwest token 525-9
Norton, John Hatley 76
Norwebs 310
Noted Advocates token 472
Nouvelle France 82, 111
Nova Constellatio 410-417, 429
Nova Constellatio reverse 384-6
Nova coppers 410-1
Nova Eborac 271-2, 275
Nova patterns 410-1
Numismatic Notes 310, 410
NY Copper franchise 310
NY Sons Liberty&Trade 220
NYC evacuation 309
NYC mint 310

- O -

Oak tree 151
Oak Tree coins 160, 163
Oak tree shilling pic 161
Oak Tree twopence 157
Oak tree twopence pic 162
Obverse die 85
ODEC 82, 110
Ogden, Aaron 305
Ogden, Hannah 306
Ogden, Matthias 303-8, 422
Ohio River Valley map 307
Ohio valley map 521
Ojibwa Indians 488, 492-3
Ojibwa Indians ITS 492
Old Armstrong House 305
Old Hall 155
Old Newton Friends Burial 188
Old plate 25, 150
Old Pretender 70, 198-9, 209-19
Old School dealers 310
Old State House & picture 151
Old Style calendar 124, 147, 177
Old style dating 41
Ollivier, Blaise 132
OMOC 82, 110
Onondaga Indians 289, 492
Ontario, Lake 291, 523
Orbit boat 134, 136, 137
Oregon city 527
Oregon Country 527
Oregon trail 527
Oregon treaty 1846 527-8
Orléans Duke pic 88, 125
Ormonde Siege money pic 189
Ormonde, Duke 189,190, 194
Ormonde, Earl 16
Otsego Lake 289
Ottawa Indians ITS 492
Overstruck coins 385-6

- P -

P for Princeps 199
Pacific Fur Company 528
Pacific Northwest map 527
Paine, Thomas 471-2
Palatine rights 16
Palmetto pic 160
Palmetto shilling 160
Paper money 485-6
Paper money Maryland 184
Paper money Penn pic 222
Paper money, Connecticut 152
Parchment issue Mass pic 42
Paris, Treaty of 82, 95, 115
Parke-Bernet Galleries 132-3,136
Parmelee, Lorin 173, 198, 257, 310
Parts of a coin 556
Parys Mine Co 445
Passmore token 444,451-2

Passmore, Thomas 451-2
Patent farthing pic 75, 146-7
Patience ship 534
Patrick coppers 187-196
Patrick large pic 196
Patrick small pic 195
Patricks 188
Patriotic tokens 547
Patterns for US Mint 429-443
Patuxent River 17
Paul Revere 240
Pawlet River 387
Pawlet, Vermont 387-8
Peace medals 493
Peace treaties 493
Peca 561
Pembroke GSS & pic 172
Pembroke, Earl of 172
Penny 499, 561-2
Penn, William 187
Pennsylvania paper money 222
Pennsylvania paper pic 222
Pentacle 179
Pepperell, William 71
Pepys, Samuel 30
Pequot Massacre & pic148, 155
Percheron, Jean-Charles 132
Périer, Gov Etienne 90
Perkins plate 450
Perkins, Jacob 243, 444, 449-51
Perpignan coppers 88
Peruvians 23, 149-150
Peter Force 236
Peter the Great & picture 124
Pettiquampscut Purchase 152
Phaeon 260
Philip II 15
Philip's War 154
Physician 123, 312, 521, 525
Piasters Espagnole 89
Piece of eight 561
Pike or spade 91
Pike, Nicholas 450
Pillar dollar & picture 36, 72 75, 499, 503
Pine tree cent 239
Pingo engraving 77
Pingo, Thomas 77
Pinkney, Thomas 308
Piracy 484-5
Pistareen 9, 36, 49, 184, 561
Pistareen cut picture 36
Pistareen picture 36, 505
Pistareen silver content 184
Pistole 498
Pitt medal pictures 224-5
Pitt token 220-225
Pitt, Sir William & picture 221
Pittsburg 221
Plague 187, 190
Plains Indians 492
Planchet cutter 388
Planchet shortage 531
Plantation money 39
Platt 257
Plight, Richard 21
PLURIBS NJ 312
Plymouth Co & map 145
Plymouth colony 157
Plymouth Pilgrims 145
Point Judith 152
Point system 85
Pointing hand 179
Poittevin, Pierre 133
Pope, Alexander 57
Population US since 1700s 560
Portugal&Brazil trade coins 500
Portuguese rulers 561
Portuguese monetary system 561
Post war recession 309
Potawatomi Indians ITS 492
Potomac River 17
Potosi 149-150
Potosi cobs & picture 23
Pounds 499, 561-2
Prestonpans Battle of 212
Pretender, young and old 34
Price, Philip Parry 521
Princeps 199
Printing press Boston 148
Privy marks 158
Proclamation Queen Anne24
Promissory notes 303
Proposed Federal Coinage 9
Protestantism 210
Protruding tongue 314
Providence Plantations 146
Province of Mass Bay 157
Provost of Dublin College 199
Punch linking 385
Punch mark 159-60
Puritans 20
Pye, Charles 445

- Q -

Quahog shell 490
Quaker's money 40-1
Quakerism 187
Quakers 151, 187, 194
Queen Anne Proclamation 24
QUIESCAT PLEBS 191
Quint 411
Quintipartite Line 187

- R -

Radisson, Pierre-Esprit 488
Rahway Mint 275, 305, 307-9
Rahway River 305
Rampant lion 32
Randolph, Edward 155
Rathmines, Battle of 189
Ratification of constitution 239, 244, 257
Rawlins Crown pic 189
Raymond, Wayte 310
Raymond, Wayte 80
Re-Castainganation 500
Rebus 97
Rechenmeister 229
Real 561-2
Red Book 7, 8, 402
Red Book listing 521
Reformation English 209
Regal coppers 70 – 74, 197, 286
Regal farthing picture 74
Regal halfpenny picture 73
Regal Irish ½ d picture 197
Regicide 153
Reich, John 533
Reign of Terror 523
Reis 561
Removal certificate 187
Renard, Matthieu 97
Renovatio 115
Restoration 190
Restrike Holt 32
Restruck douzaines 110
Reuben Harmon 384-7
Revere, Col. Paul 221, 240, 243
Reverse die 85
Revolutionary Tribunal 523
RF counterstamp 104
Rhode Island Ship Medal 9,226-31
Richardson, John 385
Richlieu, Cardinal 84
Rights of Man 471
Rijksdaalder & pic 24, 499, 515

Rindell, Gilbert 305, 309
Ring shilling picture 183
Rinuccini, Archbishop 189
RISM 226-231
RISM Brass picture 231
RISM design elements 226
RISM McDowell types 226
RISM ornament 226
RISM Pewter pic 230
Rittenhouse, David 431-2, 450
Roanoke wampum 491
Roas, Juan Rodriguez de 23
Robert, Sir Cecil 15
Robinson, Habilton 309
Rocha, Gomez de la 23
Roche Voce Populi 197-219
Roche, John 197
Rocker press 163-4
Rodriguez de Roas, Juan 23
Roettier, Charles-Norbert 104
Roettier, John 30, 41, 542
Roettier, Joseph 30
Roettier, Joseph-Charles 104
Roettier, Norbert 89, 113
Roettiers, Joseph-Charles 89, 104
Rogers, Pres. of Harvard 35
Rolfe, John 17
Rolling mill 157, 388
Roman head cent 444, 446
Roman head CT 261
Roper sales 310
Rosa ½ d 1722 uncrnd pic 44-6
Rosa ½ d 1723 uncrnd pic 47
Rosa 1733 pattern pic 43
Rosa 1d 1722 uncrnd pic 48-9
Rosa 1d 1723 Crowned pic 50
Rosa 2d 1722 uncrnd pic 52-3
Rosa 2d 1723 Crowned pic 54
Rosa 2d 1733 electro pic 55
Rosa 2d ND uncrnd pic 51
Rosa American 35-55, 57
Rosa Americana engravings 39
Rosa Americana 35-55, 76
Rosa ground finds 42
Rosa patent 41, 43, 56
Rosa sine spina 38
Roscherville, Pierre de 91
Rouen mint 91
Round head CT 261
Royal African Co. 542, 545
Royal authorized coins 9
Royal bank 127
Royal Exchange 111, 544
Royal Exchange pic & plan 544
Royal Mint 77, 193, 197
Royal Oak 153
Royal Society 172, 199, 221
Royal Tower Mint 21, 40-1
77, 157, 193, 197, 521, 545
Rumrill & Shumway 180
Running Fox NJ copper 310
Rupert Mint 273, 385, 390-1
422-3
Rupert Mint location 388-90
Rupert, Vermont 258, 384, 387-8
Rupert's Land 489
Rupert's Land map 527
Rush, Benjamin 450
Rust, Maj. Horatio 424
Ryder-Richardson numbers 385
Ryder, Hillyer 173, 244, 385
Ryswick treaty 24

- S -

Sabin Mill 262
Sage's Numismatic Gal 257
Sailor's income 486
Saint George town 534
Saltire cross 104
San Idelfonso Treaty 111
Sanderson, John 152
Sanderson, Robert 151, 156
159, 163-4,169
Saratoga Battle of 228
Saugus ironworks 149, 159
Saugus Ironworks pic 149
Sauk Indians ITS 492
Scarecrow 37
Scholar's head CT 261
Schulenburg, Ehrengard 37
Scilly Isles 30
Scott's 8
Scovill Co. 424
Screw press 157, 169, 184
193, 388
Scurvy 147
Sea Adventure ship 534-5
SEAI 132
Segmented collar 422
Seignorage 38
Seneca Indians 487
Serpent head 314
Seven Dials district 38, 41
Seven year renewals 169
Seven Years War 220
Severn battle, MD 20
Seville 25
Sewall, Hannah 154-5
Sewall, Samuel 154-6
Shamrock 192, 199
Shaving coins 150
Sheldon, William 259
Sheridan, Thomas 57
Sheriffmuir Battle of 212
Sherman, Roger 255
Shilling picture 510
Shilling 499, 561-2
Shiny silver 492
Ship building 148
Ship halfpence 444, 446
Ship mast boatload 154
Shipman, Elias 255, 260
Shirley, William 71
Short bust Voce Populi 198
Short bust Voce P picture 202-4
Shot 489
Shubert, Michael 431
Shunning 152
Siderography 243
Sieur de la Salle 111
Silver center cent 432
Silver in bath metal 40
Silver rider 24, 35, 499
Silver rider picture 24, 35, 516
Silver St. Patricks 193
Silversmiths 163, 308, 493
Silver to gold ratio 562
Silverware 149
Simitiere, Pierre du 180
Sit nomen benedictum 85, 91
104 112
Sit nomen domini 85
Sixpence picture 511
Slavery 183, 185, 483, 534, 543
Sleigh runner 312
Small head NJ 312
Small pine tree 151
Small Pine Tree coins 169
Small Pine Tree Shlg pic 170
Smallpox 88
Smith, Adam 123
Smith, Capt. John 535
Smithers, Col. James 221-2
Snake 184, 191
Snelling, Thomas 173, 540
London elephant token 540
Snelling's book 38
Snowden, James Ross 431
Society of Cincinnati 291, 303
Soho Mint 445
Sol 84, 112, 499, 561-2

Solitude 305-6
Sols tampés 96
Somerset 40
Sommer Isles money pics 536-7
New Yorke token 538-40
Sommer Island money 534-7
Sons of Liberty 220
Sou 96
Sou Marqué picture 120
Sous marqués 95-6, 110, 114-5
South Sea Company 40-1, 127-8
South Sea Shilling picture 41
Sovreign Expl Assoc Int 132
Spade or pike 91
Spanish American metrology 559
Spanish milled dollar 499
Spanish monetary system 561
Spanish rulers 561
Spanish silver 150, 159, 184
Spanish Succession War 220
Spanish trade coins 498-9
Sparke, Robert 56
Sparrow note 185
Sparrow, Thomas 183-4
Special Places Protn Act 137
Specie 127, 485, 487
Spelter 40, 56
Spencer, Charles 37
Spielmarke 452
Spiny Oak Tree 158
Spiny oak Tree picture 165
Splasher, brass 192, 194
St Patrick coppers 77,187-196
St. Augustine 12
St. Clement's Island & map 17
St. George's Cross 227
St. Mary's City & map 17
St. Patrick denominations 193
St. Patrick large picture 196
St. Patrick picture 192
St. Patrick small picture 195
St. Patrick's Day 192
St. Patricks metrology 190
St. patricks silver 193
Stack family 310
Stamp Act 220-1
Stampees 95-104, 107
Stampee pics 98-103
Standing Indian 272, 276
stannic oxide 30
Staple Act 1663 484
Star 244
Starburst 179
Starry pyramid 467
Stars and stripes 411
State coinage 9
Staten Island 538
Steam-powered press 422
Sterling 150, 562
Stevinus, Simon 431
Stirling Iron works 288
Stone, Gov. William 20
Storer, Robert 149
Storm, Alex 133
Storm, Alex picture 137
Story of Jacobitism 209-219
Stroke 309
Stuarts 209 – 219
Stuyvesant, Peter 538
Success token 444, 451-2
Sugar plantations 483
Sullivan, Maj. Gen. John 228, 289
Summers, Sir George 534
Surety bond 432-3
Survival rate NJ coppers 314
Susquehanna River 289
Sutherland, Earl of 38, 56
Sweating coins 150, 500
Swift banknote pic 58
Swift engraving 59
Swift, Johnathan 42, 57-9, 197
Swift, Johnathan picture 57
Symbolism of trees 164
Symmes, John Cleve 306-7
Syphilis 38

- T -

Tajaderas 483
TAL cent 469-70
TAL mules 470
Talbot, Richard 210
TalbotAlumLee 466, 469-70
Talon, Jean 83, 86
Talon, Jean picture 86
Tangier, Morocco 543, 545
Tarot decks 179
Teeth marks 164
Temple, Sir John 57
Temple, Sir Thomas 153
Tercentenary of MBC coin 155
Test Act 1673 210
Texas Jola 525
The Great Commoner 221
Third Anglo-Dutch war 548
Third Church Boston 154
Thomas Paine tokens 471-2
Thomas Pinkney 308
Thompson, Charles 410
Thompson, John 410
Threadneedle St. picture 544
Three guilder piece 499
Three headed halfpenny 239-42
Threepence picture 512
Timeline for Mass silver 171
Tin alpha, beta 30
Tin 30, 56
Tinkling 487
Tinners 30
Tioga 289
Toad 191
Tobacco 17, 20, 23-4, 488
Tobacco picture 488
Tobacco receipt 18-9, 75, 488
Tobacco receipt pic 18-19, 485
Tobacco trade 483
Tobacco, Virginian 535
Tobago C/S Stampee pic 103
Tobago counterstamp 97
Tokens 9, 151
Tories (Catholic) 210
Tory (English sympathizer) 222
Tory copper 384
Tower Royal Mint 21, 40-1
77, 157, 193, 197, 521, 545
Tower weight system 562
Townsend, Peter 288-9
Trade beads 491
Trade coin list 498
Trade coins 498-520
Trade money 485, 487
Transubstantiation 210
Treasure Trove Act 135, 137
Treaty Aix-la-Chapelle 71, 134
Treaty of Aranjuez 111
Treaty of Breda 154
Treaty of Limerick 211
Treaty of Paris 82, 95, 115
303, 448
Treaty of Ryswick 24
Treaty of San Idelfonso 111
Treaty of Utrecht 489
Treaty Westminster 150
Tree symbolism 164
Trefoil 91
Trial ship 149
Triangular trade 147
Triumpho token 444, 447-8
Troy ounce 40
Troy weights 562
Troyes, France 562
Trumbull, john 303

Tuckar, Daniel 534-5
Tuesday Club 184-6
Tuesday Club medal pic 185
Tulipomania 127
Turnbull, John 288
Tyng, Capt. Edward 71
Tynwald Act 1678 194
Tyrconnel, Earl of 210

- U -

UDEC 82, 110
Uncas Mohegan chief 155
Underhill, Capt. John 148
Union with Scotland 491
Unity States 444, 449
US Constitution 429
US GDP since 1700s 560
US population since 1700s 560
US labor costs since 1700s 560
US Mint 308, 469-70
Useful vs symbolic money 487
Utile dulci 41
Utrecht, Treaty of 489

- V -

Valley Forge 303
Van Loon Dutch Medals 228
Van Voorhis, Bayley, Coley.. 308
Van Voorhis, Daniel273,384,387
Vancouver, Capt. George 527
Vanhomrigh, Esther 57
Varin, Jean & picture 84
Varmint 191
Vatrin, Monsieur 104
Vaudreuil, Gov Gen & picture 90
Vaughan, Sir William 16
Velocity of money 123, 486
Vermont Auctori 384
Vermont coppers 384-401, 411
Vermont franchise 384
Vermont mule 273
Vermont state 387
Vermont State Seal pic 387
VERMONTENSIUM 384-6
VERMONTIS 384-6
VERMONTS 384-6
Verrazano, Giovani de 145
Versailles 83, 124
VIGO 40, 41
Virginia coins 75-81
Virginia Company 15
Virginia halfpence & pic 81
Virginia Ship 77
Vlack stampee classes 97
Vlack, Robert 7, 257
Vlack's Machins plates 274
VLUGTENDE 226-7
Voce Populi 197-219, 466
Voce Populi farthing pic 201
Voigt, Henry 308, 434
Voorhis, Coley & Bayley 308
Voorhis, Daniel van 384, 387

- W -

Wadsworth, Capt. Joseph 156
Walker, W & Alex 430
Walpole, Sir Robert 37, 56
Walter Mould 306-7, 309-10
Wampum 35, 147, 151, 483 490-1
Wampum picture 147
Wampum, counterfeit 491
Wampumpeage 490
Wampumpeage picture 495
War Austrian Succession 220
War of 1812 531
War of Grand Alliance 220
War of Spanish Succession 220
Warren, Sir Peter 71
Wars of Roses 40
Washington & Indep token 449
Washington born Va. 444, 451
Washington cent 180, 417,430
Washington Pres. Coin 444, 451
Washington, G.288, 308-9, 431-2
Washingtonia 9, 430, 444-465
Waterloo, battle of 70
Watson, Bishop Richard 402
Watts Printing works 468
Watts, James 472
Wealth of Nations 123
Wealthiest Americans 529
Weight loss from wear 316, 500
Wentworth, Benning 71
West Indies 534
West Rock 257
West/East Jersey map 187
Westminster Treaty 150, 538
Westwood Obadiah 430, 468
Whatsits 314
Whigs (Protestant) 210
White, John Rev 145
Whitlock, Bulstrode 20
Whitney, Eli & Co 262
Widdegan Henry 309
Widdington, Sir Thomas 20
William Moulton 236
William Stone 20
William Vaughan, Sir 16
Williams, Roger 146, 491
Williamsburg 78
Willow tree 151, 153
Willow Tree coins 159-60
Willow tree shilling pic 160
Wilson, Rathmell 410
Windham Center 153
Windsor treaty 56
Winnebago Indians ITS 492
Winthrop, Gov. John 146-9
Winthrop, John Jr., 538
Witch bend 164
Witherle, Joshua 243
WM New Jersey pic 306-7
Wolverhampton 36
Wood, William 35–55, 56-69
Wood's Hibernia 56 – 69, 77 197
Wood's metal 40
Woodbridge, Rev Tim 176-7
Woods Indians 492
Woodsmen 488, 492
Woodward, J Elliot 232
Woodward, W. Elliot 180
Woody Point 135
Worcester battle of 20, 189
Worm short and long 184
Wormser, Moritz 483
Worshipful Co Blacksmiths 178
Wright, Joseph 432
Wright, Patience 432
Wyatt, Thomas 173-4
Wynne, Capt Edward 16
Wyon Mint 232, 306
Wyons 417, 466-7

- XYZ -

Ye Owner's Adventure ship188
Yellow fever 432
Yeo, Richard 77
York Factory 527
York Factory express map 528
Yorktown 291
Young Pretender 70, 199, 209-19
Young Pretender birth pic 213
Young, Mathias 32
Zelinka dies 199-200
Zelinka table for Voce Pop 208
Zelinka types of VP 198
Zinc 40
Zuni Indian silver 493

Passionate collector, Dr. Peter Jones describes his fascination with colonial American coins. You can actually feel the connection to the past when you hold a colonial coin in your hand. A colonist once held the same coin! This book tells the stories behind colonial coins. Peter trained at Cambridge and Oxford Universities, UK, doing a dual residency in Family Practice and Internal Medicine. In 1977 he immigrated with his wife, Ann, and their three daughters to rural Connecticut, where he practiced Internal medicine for 39 years. His avocations have included classical piano playing, flamenco and classical guitar playing, American financial history, magic, and numismatics. He has also authored "Notable Notes", and with Cynthia Adams "Therapeutic Comunication", now in its third edition.

ISBN

xxxxxxxxxxxxx